APPENDIX TO THE REPORT

OF THE

COMMISSIONER

APPOINTED TO INQUIRE INTO THE EXECUTION OF THE CONTRACTS FOR CERTAIN

UNION WORKHOUSES

IN

IRELAND.

Preſented to both Houses of Parliament by Command of Her Majesty.

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ADDITIONAL OBSERVATIONS ON MR. PENNETHORNE'S REPORT.

APPENDIX TO REPORT.

Poor Law Commission Office,
June 6, 1844.

SIR,

I HAVE now the honour to forward, for your information, the observations No. 1.
which have been prepared by Mr. Wilkinson, and also those by Mr. Gulson and No. 2.
Mr. Power, upon Mr. Pennethorne's Report on the Irish Workhouses. I likewise No. 3.
enclose the copy of a second letter from Mr. Hawley, giving some further explanations respecting the Tralee site case, after having seen the documents which I had caused to be transmitted to him.

There are yet two or three points on which I wish to offer a few remarks, in addition to the explanations which I had the honour to transmit to you in my letters of April the 22nd and 26th and May the 11th; and the first of these is the point raised by Mr. Pennethorne, that the original order to borrow constituted a kind of compact on the part of the Commissioners to provide a workhouse for the sum named in the order.

In enumerating the complaints of the Guardians, Mr. Pennethorne states, at page 22, that—

> "They" (the Guardians) "consider themselves to have been deceived by the Poor Law Commissioners when the order to borrow the first loan was issued, because this order, in the estimation of many of them, was a sort of contract entered into between the Commissioners and themselves for the building of the workhouses, and was also a clear and distinct undertaking and pledge on the part of the Commissioners to complete and finish the house in every respect, fit for habitation, &c., for the sum borrowed."

And again, at page 12, Mr. Pennethorne says,—

> "The charges made by the several Boards of Guardians have been, of course, very differently expressed; but I do not state them too strongly in saying they consider themselves *to have been deceived* by the Poor Law Commissioners when the order to borrow for the first loan was issued."

And he then, after noticing the charges made against the architect of "*dereliction of duty*," and against the "*looseness*," "*negligence*," and "*extravagance*" with which the business was conducted, goes on to say,—

> "It appears to me that the Guardians have full and just grounds for all these complaint."

Afterwards, at page 22, Mr. Pennethorne says,—

> "Although it cannot be said that the Boards (of Guardians) have been wilfully deceived, they have been greatly misled, because they were each fully justified in their expectation that for the sum borrowed they would have a sound, substantial, and staunch house."

And at page 85 he further states,—

> "It is quite certain that, from the terms of such order (the order to borrow), they (the Guardians), were fully justified in expecting to have, for the sum borrowed, a good and substantial house, fit in every respect to receive paupers."

It appears from the above extracts, as well as from the general tenor of his Report, that Mr. Pennethorne considers the order to borrow in the light of an engagement on the part of the Commissioners to provide a workhouse for the sum named, and that the exceeding of this sum, in any case, was virtually a breach of faith, of which the Guardians had just cause to complain.

Now, the order to borrow recites that, "Whereas it has been represented to us" (the Commissioners) "that the cost of erecting the said workhouse," &c., "together with the sum required for the purchase of the said land, and for obtaining immediate possession thereof, will amount to the sum of £ , or thereabouts;" and then goes on to direct the Guardians to raise or borrow the sum named; but nothing in the nature of a compact or engagement appears in the order, neither is there anything to show that the Commissioners were bound or restricted to that particular sum, which is, in fact, founded upon an estimate, and can only be regarded as an approximation. It might be too much, or it might be too little, to provide for the execution of the necessary works; but on the representations made, and on the best estimate that could be formed at the time, the Commissioners con-

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sider that the sum named, " or thereabouts," would be sufficient for the purpose, and therefore direct the Guardians to raise it.

In this light, as far as I am aware, the order to borrow has always been regarded; and, indeed, this is, I think, the only interpretation that it will fairly bear. The notion of its being an engagement on the part of the Commissioners, or of its restricting them to the particular sum named, never occurred to me, nor, I believe, to my colleagues. It may possibly have been entertained by certain members of some of the Boards of Guardians, and Mr. Pennethorne's various communications with them may perhaps have served to give it some kind of form and currency; but I apprehend it can hardly be a general feeling among them, although it may suit a present purpose to advance it, with the view of founding upon it a claim to be relieved from repayment to Government of the whole of the loan advanced for providing the workhouses.

How, indeed, could the order to borrow possibly limit the Commissioners' powers in this respect? The 35th section of the Irish Poor Relief Act enacts, " That the " Commissioners may, from time to time, as they may see fit, build, or cause to be " built, a workhouse or workhouses for any Union, in such manner as the Commis- " sioners shall deem most proper for carrying the provisions of this Act into exe- " cution, and may order and direct the Guardians of any Union to uphold and " maintain the same," &c.; and the Guardians are authorized and required " to " assess, raise, and levy such sum or sums of money for these purposes as the Com- " missioners shall at any time direct." These provisions are absolute, both as respects the Commissioners and the Guardians.

The duty of providing the workhouses, which the Act imposes upon the Commissioners, is imperative and exclusive; it cannot be shared with the Guardians, who have no option or choice in the matter,—the sole responsibility resting with the Commissioners; whilst the functions of the Guardians are limited to the raising of the funds, or rather to the execution of the securities, necessary for that purpose. Mr. Pennethorne, however, appears to take a different view, and to consider the Commissioners in the light of subordinate parties, who had come under an engagement to the Union authorities to provide them with a workhouse on certain stipulated terms, as expressed in the order; and hence, I imagine, arise the erroneous conclusions to which he has come on this point, as well as the misapprehensions generally in reference to the position and the duties of the Commissioners which pervade his Report.

Mr. Pennethorne adverts, in several parts of his Report, to the haste with which the arrangements for building the workhouses were framed, and either directly or by implication imputes censure to the Commissioners for not allowing more time for the operation, attributing much of whatever defects or deficiencies arose in the progress of the works to this cause. He further appears to consider that this haste was not only inexpedient in itself, but that it was unwarranted by circumstances, and covertly adopted; for at page 23, after noticing our original intention of confiding the superintendence of the buildings to the Board of Works, he says,— " But for some reason *unexplained*, it was thought desirable to build all these " houses with the greatest rapidity."

Now the course which we considered it to be our duty to adopt, was certainly not without previous explanation; for, in my Second Report to Lord John Russell, dated in November, 1837, the whole question as to the mode of introducing the measure is very fully discussed, under a separate heading, the last paragraph of which is as follows:—

> " 112. After the most careful consideration of the question in all its bearings, it is my duty to
> " state to your Lordship my opinion, that no time should be lost in giving legislative effect to
> " the Irish Poor Law Bill, and that the measure should then be carried into operation with the
> " least possible delay. If there be danger of failure in any respect, it will be in the period
> " which intervenes between the establishment of the first Union and the formation of the last.
> " When the whole country is in Union, and the several local executives formed and in operation,
> " there will then, I believe, be no undue pressure in any quarter that may not be dealt with
> " under the powers vested in the Commissioners; but in the interim, whilst the Unions are in
> " progress of formation, I am sensible that some inconvenience may arise; and it is to lessen
> " the chance of its occurrence that I wish to shorten the period, and push forward the forma-
> " tion of the Unions with as much celerity as may be consistent with the safe and orderly com-
> " pletion of so important a measure. If I venture to press this point with unusual earnestness,
> " it is not from any doubt of the sufficiency of the workhouse principle in Ireland when brought
> " fairly and fully into operation, but in order to guard it from an unfair or partial exposure,
> " and to prevent, as far as possible, its being subjected, under adverse circumstances, to a
> " pressure that may possibly (I say *possibly*) be thrown upon some one part, instead of being
> " spread over the whole of the machinery; for then, if this part, possibly too a weak or defec-

"tive part, should fail under such an unequal pressure, there will not be wanting persons to "impugn the whole system; and thus its moral influence may be lessened, if its very existence "be not endangered."

The above extract may serve to show, even independently of the statements contained in our Annual Reports, that the course which we pursued was not adopted suddenly or without consideration, and that the reasons for proceeding with as little delay as possible were not "unexplained," as stated by Mr. Pennethorne; but to make this point still clearer, I annex, in the appendix, the whole of the article "*As to the mode of introducing the measure,*" from my Second Report on the Irish Poor Law. No. 4.

In several parts of his Report, Mr. Pennethorne speaks disparagingly of the stone, brick, lime, and other materials used in building the workhouses, which are, doubtless, all more or less different from what he has been accustomed to in this country; and the tone of his remarks go to show, that in his opinion there had been either ignorance or negligence on the part of our architect in superintending this branch of his department, as well as in the construction of the walls.

With respect to negligence, I can, of my own knowledge, assert that there is no ground whatever for the charge, which I am satisfied would not have been made if Mr. Pennethorne had possessed any experience in the superintendence of Irish buildings; and with respect to ignorance, it is no more than justice to Mr. Wilkinson to state, that he has formed a large and very valuable collection of the stone of every kind fit for building purposes from all parts of Ireland, which he has subjected to carefully devised tests, showing the amount of absorption, the nature of the fracture, and the power of sustaining pressure, of each particular kind. Mr. Wilkinson has, in like manner, formed a collection of Irish bricks, and made numerous experiments on the different kinds of lime found in that country. The specimens of stone and brick are deposited with the Geological Society in Dublin, and are highly appreciated by that body, and also, I believe, by the profession. It can hardly be said, therefore, that Mr. Wilkinson was ignorant on points to which he has given so much attention, and which are so important for an architect to know; and I can bear the most unhesitating testimony to the zeal and industry with which his professional knowledge in this and every other respect was applied, in superintending the construction of the Irish workhouses.

Mr. Pennethorne, however, seems to have entered upon his inquiry with adverse impressions, and under the influence of a criminatory spirit. He had heard the buildings denounced as having been hastily and defectively executed, and the expenditure upon them as wasteful and extravagant; he had seen memorials and representations strongly hostile to the Commissioners, and condemnatory of their architect, and he came to the conclusion, perhaps not unnaturally, that all these adverse statements could not have been made without cause.

Then, on his arrival in Ireland, he found everything different, in some cases very different, from what he had been accustomed to in England, and he concluded that everything was wrong,—the buildings, the mode of conducting the business,—every step taken in connexion with the providing of the workhouses, appeared to him to be faulty; and in his various interviews with the Guardians, and other parties, he heard and saw much to confirm his views on these points. He invited complaints, and they were eagerly supplied. He sought for faults and hunted out defects, and he could hardly fail in finding them; or if he and his assistant failed in finding them, there were others always ready to point them out, and to magnify their extent and importance, or to invent them if they did not actually exist; whilst nothing in the way of explanation, or repelleut of the various charges thus elicited, was sought for from the only person who could afford adequate explanation; and thus were gotten together the materials developed in his Report, which, I have no doubt, he considers sufficient to sustain the opinions which he has advanced, although, if he had communicated with our architect, and examined the facts and data on both sides, as he surely ought to have done, his conclusions would, I think, have been very different, notwithstanding his deficiency in local information, and the adverse impressions under which he appears to have entered upon his inquiry.

I perceive by the votes that Mr. Pennethorne's Report was laid before Parliament on the 24th of May, and on the 29th I received a copy, having my three letters annexed to it by way of Appendix. It will now, therefore, be circulated throughout Ireland, and will carry with it all the weight and authority which a document so prepared and presented is calculated to impart to its statements, whilst nothing as yet appears from our architect, whose conduct is so deeply implicated, nor from the Dublin office, in explanation of the documents quoted or referred to by Mr. Pennethorne. I have respectfully to request, therefore, that the explanatory statements which have been prepared by Messrs. Gulson and Power, and by Mr. Wilkinson, and Mr. Hawley, may be likewise printed and presented, it being, I think, of great importance, that the legislature should be furnished with these explanations in a like convenient form with Mr. Pennethorne's accusations, and that Parliament and the public should not be left altogether without a corrective, to what I believe to be his erroneous representations. This, in fairness, I consider that I am entitled to ask; and this, in justice, I am persuaded that you, Sir, will at once concede.

I have the honour to be,
Sir,
Your very faithful and obedient Servant,
GEO. NICHOLLS.

P. S.—I have received from Dublin a statement of the total cost, the cost for extras, and the cost per head for the number of inmates, of each of the Irish workhouses, and this statement I herewith enclose. (No. 5.)

I also enclose (No. 6,) a similar statement of 60 of the English workhouses, from which returns have been received; and to facilitate comparison as to the cost of the buildings, and the extent of accommodation, I likewise enclose (No. 7,) a statement showing the cost in England and in Ireland of the houses having accommodation for less than 300 inmates; the same for houses capable of accommodating 300, and not exceeding 500; the same for houses of 500 and not exceeding 1000; and the same for houses of 1000 each.

G. N.

To the Right Hon. Sir James Graham, Bart.,
&c. &c. &c.

No. I.

APPENDIX TO REPORT.

MR. WILKINSON'S OBSERVATIONS.

1st. *As to the Sufficiency of the Supply of Water.*

1. Supply of Water.

It appears that the Guardians of 18 Unions out of the 26 visited by Mr. Pennethorne have complained of the insufficiency of the supply of water, or of having been put to great additional expense to obtain sufficient, or of the quality, viz., Belfast, Londonderry, Castlederg, Balrothery, Carrick-on-Suir, Edenderry, Limerick, Ballinasloe, Trim, Omagh, Carrick-on-Shannon, Fermoy, Dundalk, Cork, Cookstown, Cootehill, Roscommon, and Coleraine.

It is proposed to examine hereafter Mr. Pennethorne's separate Reports on these several Unions in detail; but a few remarks will first be made on his general observations and statements on this subject.

Mr. Pennethorne's general Observations and Statements on each Subject.

Many of the houses were declared fit for the reception of paupers, with a very inadequate supply of water;[*] and in some of such places (either for deepening the well, or sinking a second well, or improving the pump) the Unions have been put to expenses which have been necessarily paid out of the rates.

Page 9.

One good well is probably sufficient for the smaller houses; but for the larger I apprehend that two will eventually be found necessary, not only to insure a sufficient and constant supply, but also to shorten the time required for pumping. In the large towns of Limerick, Cork, Belfast, and Londonderry the Guardians have sunk a second well; at Cork and Belfast the supply is now sufficient; but at Limerick and Londonderry they have not hitherto been so successful. The houses in others of the large towns have not been yet so full as to test the supply. I believe, however, that I am quite correct in stating that most of the houses, when they were declared fit for the reception of paupers, had a very limited supply; and that many Unions have been put to additional cost for repairing the pumps, deepening the wells, sinking another well, &c. I do not remember above two or three workhouses where there is a doubt as to obtaining eventually a sufficient supply within the boundary (say Limerick, Londonderry, and Cookstown).

Architect's Explanation.

In only four of his 42 Special Reports, viz., on Belfast, Londonderry, Limerick, and Carrick-on-Shannon, does he adduce instances bearing out this general statement. There is no trace in his Report of any inquiry having been made by Mr. Pennethome whether the supply at Belfast and Londonderry was, or was not, sufficient at the time the workhouse was declared; nor does he state any source from which he derived such information; and of these two cases the last is disputed. It is believed that there appeared, on the application of proper tests, a sufficient supply of water, both at Belfast and Londonderry, at the time the workhouses were declared.

As to Limerick and Carrick-on-Shannon, see the architect's explanation on the Special Reports regarding supply of water.

The difficulties encountered in sinking the well at Carrick-on-Shannon have protracted the completion of the work until within a few months past, being a case of the greatest difficulty and cost which has occurred in the whole number of Unions declared in Ireland.

The Report contains no proof of the assertion that "many," far less that "most," of the workhouses had an inadequate supply of water at the time they were declared fit for the reception of the poor. If anything is proved by the Report it is the negative of this proposition. Mr. Pennethorne surveyed (himself and his assistant) 62 workhouses, on 42 of which he has made Special Reports, and 18 of which (he states) made complaints on the subject of the supply of water. In regard to 60 of the Unions, he has not set forth any of the grounds on which he makes this general statement.

The statement, "that in some of such places (either "for deepening the well, or sinking a second well, or improving or repairing the pump) the Unions have been "put to expenses which have been necessarily paid out of "the rates," is borne out in the following manner:—

The only instances which occur in the 62 Unions visited of a well being deepened by the Guardians are those of Limerick and Ballinasloe, regarding which, see architect's explanations under each of these heads.

Second wells are represented by Mr. Pennethorne to have been made in the following six Unions:—Belfast, Cork, Londonderry, Limerick, Dundalk, and Cootehill, upon all which cases, see explanations given hereafter.

As to "improving or repairing the pumps," three cases are adduced in the Special Reports, viz., Balrothery, Coleraine, and Edenderry. At Coleraine the amount of expense reported is 3*l*. 10*s*.; and at Edenderry the report is, that the master of the workhouse stated that "repairs have been done to the pump by Flanagan." There is little doubt that repairs have been done to the pumps in many Unions where repairs have been required; why the cost thereof should not be "paid out of the rates" does not appear. It would have been more to the purpose if Mr. Pennethorne could have stated, which he could not, that the pump had in any one instance been given up by the contractor otherwise than in good, sound, working order.

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[*] See Mr. Pennethorne's Report, p. 84.

1. Supply of Water.

Mr. Pennethorne's general Observations and Statements on each Subject.	Architect's Explanation.
Page 84. When the sites were chosen, no sufficient care was taken to ascertain whether water for the supply of the house could be procured thereon. *Page* 8. I have little information as to the steps taken for ascertaining the quantity or quality of the water of the several sites before they were chosen. I do not apprehend that in many cases recourse was had to boring or sinking; so far as I learned, the information obtained by the Assistant Poor Law Commissioner and by the architect, or his assistant, was derived from such evidence or opinions as could be given by persons living around; and from their own observations of the levels and bearing of the country, and of the wells and streams around. One of the complaints is that as regards the quality or presence of water; sites were occasionally chosen in opposition to the opinions of the neighbourhood. *Page* 3. The sites were never finally chosen until they have been surveyed by the architect or one of his assistants; the points to which his attention would be principally directed were the supply of water and the means of drainage; in these respects many of the sites have proved deficient.	The observation that "no sufficient care was taken in "choosing the sites to ascertain whether water for the "supply of the house could be procured" is sufficiently answered by the admission of Mr. Pennethorne, that he had "little information as to the steps taken for ascer-"taining the quantity or the quality of the water of the "several sites before they were chosen." Mr. Pennethorne does "not apprehend that in many cases recourse "was had to boring or sinking." So much attention was actually paid to this point in choosing the sites, and so much inquiry made, that boring or sinking was not considered necessary "in *many* cases;" where serious doubts arose, recourse was had to those means. At Dungannon, for example, the sinking was carried to a depth of 160 feet before the engagement for the site was completed; and a good supply of water was found at that depth, no other site being so eligible. At Coleraine also the same course was pursued; and in several cases other precautions were adopted to ensure a supply of water. If the complaints (quere, by whom and where?) to the effect "that, as regards the quality and presence of water, sites "were occasionally chosen in opposition to the opinion of "the neighbourhood" were inquired into by Mr. Pennethorne, he has not anywhere in his Report stated the result of those inquiries, unless his Report on Carrick-on-Shannon may be cited. That *many* of the sites have proved deficient in the supply of water is not shown by Mr. Pennethorne; on the contrary, he negatives the proposition himself, in the most effective and conclusive manner. "I do not remember," he says, at page 9, "above two "or three workhouses *where there is a doubt* as to the "obtaining eventually a sufficient supply within the "boundary; say Limerick, Londonderry, and Cookstown."

The case of Belfast in which Mr. Pennethorne complains that a second well has become necessary, may be adduced as a proof of the uncertainty attending the selection of sites in reference to water. The Belfast site adjoins and is nearly on a level with the public springs which supply one half of the town of Belfast with water, and if the provisions of the Irish Poor Relief Act had enabled the Commissioners to take possession of *any* site which they considered fit for their purpose in the vicinity of Belfast, no site could have been fixed upon with greater assurance of an ample supply of good water.

Pages 8 *and* 9. In the specification for each building there was a clause requiring the contractor, at his own cost and at his own risk, "to sink a well where "shown on plan," (always the kitchen-yard,) "and go a sufficient depth "to insure a strong and good supply "of water." Such a clause without any knowledge previously obtained as to the depth at which water could be procured, or as to whether it could be procured at all, (which in places was the case,) was of course inoperative from its vagueness; and the contractor having done all that in reason could be expected from him, was allowed an extra at six places, (as shown hereafter in the remarks on the cost of the buildings,) for the completion of the well, which did not then afford "a strong and good supply," and at each of the places above-named Guardians are now complaining. *Page* 15. In the remarks hereinbefore made as to the sufficiency of the supply of water, I have stated, that notwithstanding the force of the clause in the specification, as to sinking the well	Mr. Pennethorne says, that the clause requiring "the "contractor at his own cost and risk to sink a well where "shown on plan, and go a sufficient depth to ensure a "strong and good supply of water, was of course in-"operative from its vagueness." The proofs which he offers of this proposition and which he was able to derive from 62 Unions visited by him, on 42 of which he has specially reported, are the cases of Belfast, Castlederg, Limerick, Cork, Dungarvan, and Coleraine; some of the facts relating to all these cases, (excepting Dungannon,) are set forth hereafter in the explanations on the special reports. It is proper, however, to state here—as to

Mr. Pennethorne's general Observations and Statements on each Subject.

Architect's Explanation.

for spring water, the contractor had been allowed an extra at six out of the 42 workhouses; they are as follows:—

BELFAST, 67*l.* 8*s.* 1*d.*

BELFAST.

The allowance is made for iron cylinders which were necessary for the protection of the building in consequence of quicksand being met in sinking the well, these were in no way embraced in the clause contained in the specification, and were therefore allowed as extra.

COLERAINE, 98*l.* 7*s.* 4*d.*

At Coleraine. an allowance was made for cylinders for the same reasons as above stated, and for deepening the well which had been sunk by the Commissioners before the site was taken, in order to ascertain whether water could be obtained in sufficient quantity. After the lapse of some months the well was found to require deepening, and the contractor was employed thereon and was paid for the work; for the persons tendering. were informed, as the specification shows, that they were to take to the well sunk by the Commissioners and to sink it deeper if necessary; but that they were to be paid extra for any further depth that might be required.

CASTLEDERG, 97*l.* 16*s.* 2*d.*

The Castlederg workhouse was not at any time intended to be supplied with water from a well, and the contract did not contain any clause for sinking a well, as it was intended that the house should be supplied from an adjacent stream, and in accordance with the wish of the Guardians, the water was conveyed by leaden pipes, and the allowance made to the contractor is for laying down the pipes referred to, so as to convey water into cisterns which were not originally intended to be used.

LIMERICK, 45*l.*

In the case of Limerick well, the contractor proposed only to sink the well a given and limited depth, and he was paid extra beyond the depth proposed for, from this cause. The specification certainly supported Mr. Pennethorne's conclusions, yet he nevertheless admits in his Report on Limerick workhouse, that he had seen a letter addressed to the Guardians, by which it appeared there was a stipulated depth.

DUNGANNON, 90*l.* 19*s.* 4*d.*

At Dungannon the Commissioners took the same course as at Coleraine, and the allowance made to the contractor is not, as stated, for deepening the well, this is fully set forth in my Report, which was, I believe, in Mr. Pennethorne's possession; the Board of Guardians acquiesced in the propriety of the allowance.

CORK, 76*l.* 17*s.*

In the instance of Cork, the allowance made is not for deepening the well, (which has always afforded a constant supply of good water.) but for sinking a second well, quite outside the site, for the accommodation of poor people who had been deprived of their accustomed supply from a surface well on the workhouse site, when the Guardians caused the site to be enclosed by a high wall. With regard to the original well no allowance has ever been made for deeper sinking, the only allowance made being for some puddle lining, outside the well, to protect it from soakage water of the yards.

Not one of the six instances therefore adduced in support of the general proposition is at all applicable to it. In the only two instances, (viz., Coleraine and Limerick,) in which the contractor was paid for deepening the well, the clause in the specification which Mr. Pennethorne considers inoperative, was no way in question, and the extra payments made to the contractor were so made in direct pursuance of the agreement existing between them and the Commissioners.

Many of the contractors would have informed Mr. Pennethorne, had he made inquiry from them, that this clause in the specification was *not* inoperative.

It is contended, in opposition to Mr. Pennethorne's vague, general, and unsupported statements on the subject of the supply of water,

1stly. That the sites have been successfully chosen, as regards the presence of a supply of water within their boundaries.

2ndly. That there was always a good and strong supply apparent when the contractors' accounts were closed. Limerick and Carrick-on-Shannon alone of those Unions which he has reported on, excepted.

3rdly. That the cases in which just grounds of complaint exist in regard to the present supply, are less numerous than might fairly be expected out of the number of cases inquired into.

4thly. That the greatest attention has been paid by the Commissioners and their architect to the provision of a sufficient supply of water to the workhouses.

In the following Unions the wells of the workhouses, from causes which will hereafter be explained, required to be sunk deeper; and the contractor's accounts being unsettled, and a deficiency of supply discovering itself within a fairly reasonable period after the completion of the well, they were, under the conditions of the contract clause before mentioned, required at their own cost to go a greater depth, namely, at Carrick-on-Shannon, Tullamore, Wexford, Tipperary, Boyle, Callan, Lismore, Cashel, Shillelagh, Gorey, Roscrea, and Gort. In most of these Unions there was satisfactory evidence of a good supply of water at the time the well was considered to be completed, the springs of some being exceedingly strong; nevertheless

Architect's Explanation.

1. Supply of Water.

the clause in the specification was sufficiently stringent, even under such circumstances, to enable the Commissioners to avoid incurring expense extra to the contract, in remedying the deficiency which afterwards became apparent.

Mr. Pennethorne does not say what course he would have recommended in lieu of the provision in the contract, or how he would have obtained a knowledge of the depth at which water could be procured, previously to making the engagement with the contractor. Had a limited number of feet been agreed upon in each case, the Guardians would have been exposed to the risk of extra payments, of which there has been so much complaint in other matters; but it is useless to speculate on what might have been proposed. I however still continue of opinion that such clause was the most operative that could be introduced, and that the only objection which may fairly be raised to it, is the severity with which it sometimes pressed upon the contractors; the existence of such a clause, while it gave a power over the contractors, did not necessarily prevent the exercise of any discretionary powers in determining what was fair and equitable in any severe case. It is however remarkable, in reference to Mr. Pennethorne's extraordinary statements, *that in no one instance has a contractor been allowed extra for the deeper sinking the well he had so contracted for.*

The theory of what is called spring water is generally well known, and the object in sinking a well being to penetrate the rocks, which contain in their fissures the water to be raised, the depth to which wells have to be sunk, and the quantity of water that can be obtained from such fissures, depends necessarily on the character of the rock to be penetrated, which even in limited areas is exceedingly variable, sometimes being very hard and close jointed, in others, perhaps very near the former spot, very open and full of fissures. Supposing the fissures, therefore, in either case, to be perfectly filled with water, the well sunk in one spot would yield a very different supply to that sunk in the other, and to obtain an equal quantity of water the one would have to be carried to a much greater depth than the other, because the fissures, being small, would require a greater portion of their surfaces to be exposed.

The supply instead of being obtained from rocks, is frequently procured from alluvial or diluvial soil, which, in greater or less depth, overlies the solid rocks, and is obtained from the open layers of gravel which frequently alternate with clayey deposits, or from extensive gravel formations.

The consideration of the above theory is important in accounting for cases in which the supply, having appeared by the application of proper tests, to have been at one time strong and good, has afterwards failed in some degree, and occasioned a necessity for deeper sinking or for a second well.

The source from whence the water is obtained, which flows into the open fissures of rocks, and pervious soils of alluvial deposits, is chiefly that of rain, which falls on the surface of the ground and is absorbed. The quantity of water contained in the rocks and subsoil is therefore dependent, to a considerable extent, on the state of the seasons. After wet years, when the quantity of rain which has fallen on the surface of the country is greater than usual, the springs continue in their natural reservoirs for a long period, at a greater height than usual. After dry seasons they diminish in about the same degree, and many springs which overflow on the surface of the ground cease to run, the water being exhausted in the fissures of the rocks which supplied them.

It therefore follows as a natural consequence, that wells sunk into rocks in which the fissures were full, may produce a very strong and almost inexhaustible supply of water, and impede further sinking, and that in after seasons when, from unusually dry weather, the springs are lower than is customary, the supply in the well will diminish, and perhaps fail altogether for a time.

It is not denied that several of the wells in the workhouses which had originally strong and good supplies of water prior to, and at the period of the declaration of the houses, have since required deeper sinking. Some of them only to a very small additional depth; but if it be shown that the seasons in which the wells were sunk, and the houses declared were unusually wet, and that the wells at that time yielded a good supply of water, the cases in question may fairly and reasonably be ascribed to the operation of natural and uncontrollable causes; notwithstanding the necessity which Mr. Pennethore appears to have felt, of ascribing all such failures to negligence and mismanagement on the part of the Commissioners or their architect.

ACCOUNT of the RAIN which has fallen in Dublin. Registered by the College of Surgeons; obtained from Captain Portlock's Memoir on Geology.

	1836	1837	1838	1839	1840	1841	1842	1843
Dublin . . .	27,049	28,134	30,565	34,816	25,788	28,882	27,502	23,440

Looking to the extended nature of the operations on which we were engaged, to the difficulties which frequently presented themselves in obtaining sites combining all necessary requirements, and to the absence of any compulsory power for effecting purchases; together with the great variation in the seasons, it may fairly be assumed that the selection of the sites with reference to the supply of water has, on the whole, been much more successful than might reasonably have been calculated upon; and this consideration will in no way be prejudiced by reference to the supply of water obtained at the other public buildings in this country, an abstract of which is here given.

APPENDIX TO REPORT.

1. Supply of Water.

Architect's Explanation.

ABSTRACT relative to the SUPPLY of WATER in some of the Public Buildings in Ireland, collected indiscriminately by the Architect of the Poor Law Commissioners, at the time of obtaining information relative to the Wells and Drains of the Union Workhouses, for a Return to an Order of the Honourable the House of Commons, in March, 1843.

Buildings.	Where supply is sufficient within the Limits of the Site, and whether obtained from Wells or Streams.		Where sufficient Supply of Spring Water is not obtained within the Limits of the Site.		Not stated whether Supply is sufficient or not.		Observations.
	Wells.	Streams.	Partial supply on the Site.	No supply on the Site.	Wells.	Streams.	
Barracks	21	..	9	4	1	..	Where water is conveyed to the building by pipes or other arrangements, the supply is considered within the limits of the site.
Bridewells	3	3	6	4	2	..	
Court-Houses	3	..	3	2	2	..	
Gaols	12	3	7	3	..	..	
Hospitals and Infirmaries .	21	9	8	5	2	1	
Lunatic Asylums . . .	6	1	..	..	..	..	
	66	16	33	18	7	1	
Total number inquired into	141						

The 18 Houses, out of the 62 visited, where the Guardians complained of the insufficiency of Supply of Water, or of having been put to a great additional Expense to obtain sufficient, or of the Quality; are, Belfast, Londonderry, Castlederg, Balrothery, Carrick-on-Suir, Edenderry, Limerick, Ballinasloe, Trim, Omagh, Carrick-on-Shannon, Fermoy, Dundalk, Cork, Cookstown, Cootehill, Roscommon, and Coleraine.

Particulars of Mr. Pennethorne's Report on each Case.

Belfast, page 25.

With regard to the supply of water, the Guardians laid before me a statement of the particulars for one week of water consumed in the workhouse, and the state of the wells each day at the same hour, viz., 7 o'clock in the morning, for the week ended Saturday, 9th December, 1843.

The Guardians' newly-sunk well, at 7 o'clock in the morning, has 6 feet of water.

The small well, sunk by contractor, 3½ feet.

Produce daily 1300 gallons; average daily consumption, 1500 to 1800 gallons.

The above return is at variance with the return ordered to be printed by the House of Commons, 3rd May, 1843, but agrees more nearly with my own measurement.

I measured middle-day, 14th November, 1843,—

	ft.	in.		ft.	in.	
Newly-sunk well	34	0	deep	5	0	water.
Small well. . .	22	6	„	3	1	„

I had no means to test the accuracy of the Guardians' statement, but the quantity stated as the average daily consumption appears to me to be not a fact, but *a calculation* of what will be required when the house shall be quite full; for they do not show that any expense has been incurred for bringing water to the house from a distance. The Guardians are apprehensive that the supply now is not sufficient; but should it prove insufficient, (which I do not expect,) they have the means within the workhouse grounds to obtain more.

Architect's Explanation.

The original well was sunk into sand which was found to be of a very running quality, and calculated to endanger the surrounding ground. In order to effect a sinking, iron cylinders were cast and sunk into the well, and the sand was then excavated until the spring was considered, by tests made, to be strong, and to afford a good supply of water, and as the deeper sinking was therefore considered unnecessary, and only entailing serious expense from the necessity of using iron cylinders for the future protection of the surrounding ground, the contractor was allowed to wall up and complete the upper portion of the well. Much pains were taken with this well. The sand doubtless accumulated at the bottom of the well, and diminished the supply; and hence the second well which was recommended. The depth of water stated in the return of May, 1842, was doubtless the then depth of the water in the well. The variance mentioned by Mr. Pennethorne between the return to the Order of the House of Commons and his own measurement is presumed to be in reference to the depth of the small well, which has been returned as 14 feet deep instead of 23 feet, by a clerical error, the 14 feet being applicable to the depth of the cylinders.

It is here asserted, but not shown by any facts, that the supply was inadequate when the house was declared. The supply was believed to be sufficient when the house was declared. The well afforded at that time a good and strong supply. If this supply afterwards failed, that fault is no proof that there was not a good supply originally, or that the well ought to have been sunk deeper, in the first instance, or that any precaution was omitted which ought to have been taken.

It is however certain that the supply, when the house was declared fit for the reception of paupers,

APPENDIX TO REPORT.

Supply of Water.

Particulars of Mr. Pennethorne's Report on each Case.

Architect's Explanation.

was quite inadequate, notwithstanding the extra cost of the well, and that the Union has incurred a considerable expense in making good the deficiencies.

Londonderry, page 27.

There are now two wells for the supply of water, one built by contract, 39 feet 6 inches deep, including the depth of water, 24 feet 2 inches; and another 27 feet 6 inches deep, sunk since the Guardians have taken possession, containing 18 feet 4 inches of water, the depths, &c. being given as measured by me on the 20th November, 1843. There is still doubt whether the wells will afford a sufficient supply in a dry summer, and the Guardians, as I was informed, contemplate to endeavour to obtain a supply from a running stream or constant spring in a field above the house. The house may therefore be said to have now (or to have the means of obtaining) a full supply; but a supply very inadequate when the house was declared fit for the reception of paupers, and the cost of remedy has fallen direct on the Union.

Some doubts were originally entertained with respect to the sufficiency of supply of water to be obtained, the rock sunk into being slate; and it was contemplated making use of a stream which flows near the house, and which would have been done but from the objections raised by some parties interested in the stream. The well, however, was sunk to a depth which promised to give a good supply, and the supply was believed to be adequate at the time the house was declared. Had the supply appeared then insufficient, the contractor would have been called on to deepen the well under his contract.

The cost of remedying the deficiency which afterwards became apparent, is said to have "fallen direct upon the "Union." It does not, however, appear that the cost of a second well made by the Guardians was greater than its cost would have been if included in the original contract.

Castlederg, page 33.

No remark is made by Mr. Pennethorne on the sufficiency or insufficiency of supply, the prices paid to the contractor for the works connected with the supply being all that is remarked on.

The supply to this house is unfailing, being conveyed by pipes from a spring in adjoining high ground, and flowing into a cistern without any necessity for a pump. It was first suggested to convey this water by an open channel, and not by pipes, in consequence of the economy of outlay, which was studied in the arrangements for the contract; and it was done by pipes ultimately in compliance with the wishes of the Guardians conveyed through the Assistant Commissioner. It is the price which the contractor is paid for his labour that is objected to by the Guardians, and not the insufficiency of supply or quality.

Balrothery, page 29.

There is no report on the complaint made by the Guardians in this case.

The Guardians' complaint regards the expense incurred in repair of washhouse, pump, and work around well; and there appears to have been no deficiency of supply, deeper sinking of the well by the Guardians, or objection to the quality of the water. This house has been occupied now about three years, and repairs of the pump might arise at any time through misuse or negligence.

Carrick-on-Suir, page 50.

There is no report upon the complaint advanced by the Guardians in this case.

This is an extraordinary case of complaint. "Of the "sufficiency of water," the Guardians say, "they make "no complaint further than the expense incurred in obtaining it, when on one of the sites offered a natural "supply of the purest kind could be had without any expense."

The well sunk for this house is not more than 12 feet deep, and has, I believe, an almost inexhaustible supply of good water. The site the Guardians allude to has, I believe, a running stream on the boundary, but to have brought a supply from it to the place where required, viz. where the pump now is; and then to have pumped it up would have cost, perhaps, ten times that of sinking through the gravel the shallow well which now affords to the pump so good a supply at a few feet below the surface.

Edenderry, page 31.

The Guardians have not furnished me with any returns as to the supply and consumption of water, nor any measurements as to the well. The master stated, that in the months of July, August, and September it was necessary to bring water to the house in casks; he also stated that "repairs "have been done to the pump by Flanagan."

There is every probability that any deficiency of supply that may occur to this house is capable of being remedied by sinking the present well to a greater depth of two or three feet, the strata sunk into being very favourable for affording a good supply. When sunk it had a strong and good supply.

In some cases I have found the alleged want of water to arise from neglect in respect of the pump. It may be so here; but I apprehend it will be found necessary either to deepen the present well or to sink another. There appears to have been a deficiency, but a sufficient supply will probably be obtained within the workhouse walls.

1. Supply of Water.

Particulars of Mr. Pennethorne's Report on each Case.	Architect's Explanation.
Limerick, page 35. The supply of water to this house is very deficient. The specification required the contractor to go to a sufficient depth to ensure a strong and good supply of water. I am not aware of any other stipulations; but according to the letter from the Commissioners to the Guardians, dated May 12th, 1842, it would appear there was. The house opened the 20th May, 1841, and on the 2nd June following, the master reported a deficiency of water, and an order was made to provide a horse and cart to draw water from the river. On the 11th of August following there was a want of water, and a pump-maker was called in to inspect the well and pump. November 24th a proposal was accepted to take up the pump, and widen the well for 7*l.* 10*s.* May 24th, 1842, James O'Neill contracted to sink a new well at 18*s.* a-foot, and gave up his contract. On the 22nd June, 1842, the Guardians paid 24*l.* to Butler and Kelly on a contract to find water which had failed, and they then ordered the paupers to be employed to seek for a spring. The estimated amount paid for horse hire drawing water, from June 2nd, 1841, to November 20th, 1843, is 120*l.*	The proposal of the contractor for the sinking this well was for a limited depth. It was left by him at a depth of 86 feet, the excess beyond the depth proposed for being paid to him. The sinking the well was completed in 1841, and tested then. It was left with 64 feet of water in it, which, after being reduced by pumping, rose 10 feet in 24 hours. The supply of the springs around Limerick are generally very weak, and some of the public buildings are supplied by pipe water. The well was enlarged at the bottom to hold a greater supply. The Guardians had the well sunk a few feet deeper, and it was thought a good supply was then met with, and the deeper sinking ceased. This, however, some time afterwards, proved not to be the case; the Guardians were recommended to sink a second well, which has been done. The two wells, however, are not sufficient for all purposes of the establishment, but are probably so for spring water; and if additional tanks are placed for collecting the rain-water, it is most likely that sufficient water may be obtained for the establishment. There is money available in the unexpended loan for effecting a deeper sinking, and this would, I believe, have been done before now, but from the difficulty which occurred in making arrangements with the Guardians for performing the work. It is probable that by deeper sinking a good supply may be met with. Numerous sites were examined, and several days occupied in trying to find one that was considered more eligible, but without success. This well was stated by me, in the return to the House of Commons, in May, 1843, to be deficient in supply.

The above are facts returned to me by the Guardians as extracted from their Minutes (except the last estimate). From these extracts it is evidently very doubtful whether a sufficient supply can be obtained within the workhouse boundary unless at great cost.

Particulars of Mr. Pennethorne's Report on each Case.	Architect's Explanation.
Ballinasloe, page 37. There is only one well for spring-water, which was at first quite insufficient. It was sunk by the Guardians, and is now about 20 feet deep, with three feet of water; the diameter at bottom being reduced by a nine inch rim of brickwork. The pump, I was informed by the master, often runs dry, and it will probably be necessary to sink another well, before a sufficient supply for 1000 inmates will have been secured for all seasons.	The well for this house was sunk 24 feet deep by the workhouse contractor, and when left afforded a good supply. It is sunk into limestone gravel. The following are the particulars of the test the day before the date of its declaration: depth of well, 24; quantity of water in the well, 18 feet; 1000 gallons raised in 1½ hours. Water the same height in the well 12 hours afterwards. The spring so strong it could not be exhausted. This well has, I believe, been since sunk about three feet deeper by the Guardians. See general remarks hereafter of natural causes which may arise for deeper sinking by lapse of time.
Trim, page 46. No information to be relied upon has been afforded with regard to the supply of water in the summer. The well is understood to be 24½ feet deep, with three feet of water, and it may become requisite to deepen it; but the house stands so near to the river Boyne that there is not likely to be any serious deficiency.	The depth of water in this well was originally never more than about 2 feet 6 inches, but the spring was stated to be so strong when tested in September, 1841, as to be considered inexhaustible by ordinary means; and after filling a cistern of 600 gallons, it was only reduced a few inches, and was at its full original height 15 minutes afterwards.
Omagh, page 49. The Guardians did not explain the grounds of their complaints as to the insufficiency of the supply of water. The well, when I measured it, was 36 feet deep, with 8 feet of water; and I was informed by one of the officers of the establishment that the pump was never dry, except at a time when the rain-water tanks were out of water.	The well was tested in May, 1842. The supply of water was obtained from brown coloured clay, containing alternate layers of fine sand, from which the water flowed. The quantity obtained was more than 2000 gallons per diem.

1. Supply of Water

Particulars of Mr. Pennethorne's Report on each Case.	Architect's Explanation.
Carrick-on-Shannon, page 52. The objection made at first to the site by the Guardians in regard to a deficiency of water may prove to be correct. The house was declared fit for the reception of paupers the 1st July, 1842, but the well was not sunk sufficiently deep, nor the pump provided till September, 1843 (14 months afterwards), and then the well only contained 6 feet of water. In November the pump got out of order and became useless, and when I visited the house on 22nd January, 1844, it was stated that water was brought from the bridge, through the town, half a-mile distant. Seven puncheons at a cost of 3s. 4d. a-day. When the Poor Law Commissioners agreed to take a lease, the reports made to them as to water justified their so doing, and even after the resolution of the Guardians of December 19th, an influential member of that body wrote to the Commissioners deprecating the resolution, and showing why there were reasons to expect sufficient water. I do not, however, think, that the Commissioners can be held blameless, because, as the Board stated their opinion so positively, and as the old well on the ground was represented to have been stopped up, and no longer used, it would have been prudent to ascertain the fact before commencing to build the workhouse. The house has now been open above 20 months, with little, if any, supply of water, and even now it is very doubtful whether a sufficient supply can be obtained within the boundaries.	This well has been found exceedingly difficult to sink, having had to be sunk upwards of 100 feet through very hard silicious limestone. A good supply, however, is now considered to have been obtained, though at very great cost to the contractor, the sinking being so hard that seldom more than 1 feet 6 inches per week could be sunk. The supply first obtained proved to be insufficient, and the contractor, at his own serious cost, has had to sink it deeper. The difficulties of sinking this well were remarked on in the return to the House of Commons in May, 1843. Mr. Pennethorne, in page 84 of his Report, remarks, that "great difficulties have been experienced, which it "is hoped have now been overcome," which it is believed "is now the case."
Fermoy, page 71. Mr. Pennethorne makes no direct report on the alleged insufficient supply of water, but he states, "that "to render the drainage as perfect as "the locality will permit, and to obtain a constant and sufficient supply "of water, and to make all the alterations and additions which are still "absolutely necessary for the convenience and discipline of the establishment, will very considerably reduce the saving of 3000*l.*, supposed "to have been effected."	There are three wells belonging to this house, of the respective depths of— 1st $98\frac{1}{2}$ feet. 2nd $100\frac{1}{2}$ " 3rd $98\frac{1}{2}$ " The water from these wells is hard, like all water obtained from limestone wells, and is distilled for washing. The wells are considered to have been much neglected, and are thought capable of affording a good supply if attended to; and the quantity in either well may doubtless, if sunk a few feet deeper, be increased at little cost. It does not appear that the apprehensions of the Guardians on this point have been as yet justified.
Dundalk, page 54. The supply of water from the well was insufficient for the use of the establishment. The Guardians have sunk another well or tank supplied by pipes from a running stream, and this supply might, without difficulty, as it appeared to me, be rendered constant, sufficient, and pure.	The well sunk by the workhouse contractors proved to afford an insufficient supply before their contract liability ceased, and they were about to sink it deeper when, at the request of the Guardians, arrangements were made for forming a channel from a running stream bounding the site, and using that in addition to the original well, the contractors for which contributed towards the expense of the latter the amount they were fairly considered liable to for the expenses likely to belong to the deeper sinking the original contract well, so that the Guardians have supplies from two sources, and certainly an abundant supply.
Cork, page 57. I am not qualified to give any opinion as to the salubrity of the site, or quality of the water. The reports made by Dr. Phelan on those two subjects appear to me very satisfactory.	The Cork workhouse has had upwards of 2200 inmates in it, the supply of water obtained from one well, 32 feet, has never failed, and all evidence is in favour of its good quality. The supply was always sufficient, and the second well, which is outside the site, was not for the use of the house, as before explained.
Page 9. "At Cork the Guardians have sunk "a second well, and the supply is "now sufficient."	
Cookstown, page 59. The supply of water I understand to be deficient, but that a hope is entertained by the Guardians that they may obtain leave to lay down pipes from a never failing spring, in a field above the house.	In selecting the site for this building it was contemplated bringing the water from a spring in a field above the site, belonging also to the proprietor of the site; but it was decided to endeavour to obtain a supply from a well instead; the well was sunk 52 feet deep, and the depth of water usually remained at 5 feet 2 inches; it was intended to carry it deeper, and jumper holes were

1. Supply of Water.

sunk, which proved to diminish rather than to increase the supply; the water previously standing at upwards of 6 feet in the well, and the jumping was stopped. The water remained subsequently at 5 feet 2 inches, and when much exhausted, recovered itself in the course of the day.

Cootehill, pages 76 *and* 77.

In regard to the insufficiency of the supply of water the Guardians, the 2nd January, 1844, came to the following resolution:—

Resolved that the pumps are not sufficient to supply half the water necessary for the establishment, although at present in good order, after having frequently undergone repairs by the Guardians, and a well had to be sunk outside the premises, in carrying water from which, a number of paupers are constantly engaged.

The depth of the well is stated in the return of 13th February, 1843, to be 53 feet, which agrees with my measurement, and 22 feet of water.

I don't find I have any account of the state of the well when I visited the house; and the above resolution, with two others passed previously, forms all the evidence laid before me by the Guardians. I am, therefore, unable to report at what time or to what extent the supply is deficient. The house was built for 800 paupers; it contained 651 on the day I inspected it, and was not, I believe, fuller than usual.

The supply originally obtained from the well was very strong, a spring being tapped, which was stated to occasion the men suddenly to ascend and leave their tools behind them, the water rising to a height of upwards of 50 feet, rising within about 3 feet of the surface.

Roscommon, page 64.

No remark by Mr. Pennethorne in his Report on this house.

This well is sunk upwards of 40 feet into hard ground. The Guardians of the Roscommon Union in their complaints state, in November, 1843, that there is abundance of water, nay too much at present; but we are informed by competent judges that there will be no water for the use of the house in the summer season, when most required.

This well was tested in January, 1843; the depth of water then in the well was 30 feet 6 inches, and after 9 hours pumping it sunk only 7 feet 9 inches, which it recovered in four hours afterwards.

Coleraine, pages 66 *and* 67.

The complaint as to the supply of water has not any reference to the quantity or the quality of the water in the well, but to the bad construction of the pump, and the constant labour required in pumping. The contractor was paid nearly 100*l.* for the extra sinking of this well, the pump, &c. The Guardians have been put to an expense of about 3*l.* 10*s.* for the repairs of the pump. The labour required for pumping must be considerable, and at many places the Guardians have complained of the difficulty they experience in getting this labour done.

The well of this house affords a very strong supply of good water.

The complaint appears to be for the expense incurred and included in the amount of the contractor's bill; except for the iron cylinders, it is no more than is common to other houses. The pump, at least, is common to nearly all.

The well was of limited depth, and for very good reasons; and hence a charge occurs in the extras for deeper sinking.

There was a doubt of obtaining a supply of water in this site, which in other respects was very desirable. A well was therefore sunk previously to taking it, and a supply of water obtained. The contractor for the house was to take to the well, and be paid for sinking it deeper if it was found to be necessary. It was found to be necessary, and he sunk it deeper, for which he was paid extra; but not more, probably, than he would have added to his contract if he had been required to include the cost, and perhaps less, because it was an uncertain estimate, and a serious one to be exposed to.

In sinking the well running sand was met with, and many difficulties presented themselves; iron cylinders were provided, and the sand was passed through and the work persevered in, and a good supply of water obtained.

The following are the particulars of the soil passed through:—

15	feet stiff yellow clay.
9	feet coarse sand, mixed with large pebbles.
12	feet clay, mixed with red sand.
14	feet brown marl.
16	feet running sand, which the iron cylinder was required to pass through.
6½	feet stiff red marl, and then into green sand.

The supply is obtained from the green sand, and from above the bed of brown marl.

2nd. As to the Sufficiency of the arrangements for Drainage.

2. Drainage.

Mr. Pennethorne states, page 9—

"The Guardians of 20 Unions out of the 62 visited, have complained that the drains are badly built, "or are incomplete and insufficient, viz., Belfast, Londonderry, Dunshaughlin, Balrothery, Edenderry, "Castlederg, Limerick, Ballinasloe, Dungarvan, Omagh, Carrick-on-Suir, Fermoy, Dundalk, Cork, "Cookstown, Tralee, Ballymoney, Roscommon, Antrim, and Killarney."

APPENDIX TO REPORT.

2. Drainage.

On the several workhouses of the above-mentioned Unions Mr. Pennethorne has made special Reports; I have abstracted therefrom whatever relates to the drainage, and have set it forth, as will be hereafter seen, with my explanation on each case.

Although 20 out of the 62 Unions may have complained on the subject of the drainage, yet on investigating each case it will be found that the complaints, in several instances, have been made without any just grounds; and in the others they have arisen from the drainage which has been provided having been neglected by the workhouse officers, or from misapprehension on the part of the Guardians. It is hoped that it will be shown, by the explanation given in reference to this subject, that the arrangements were decided on after very careful and attentive consideration, and that in practice they have been shown to be generally sufficient and effective.

It was deemed advisable, in consequence of the uncertainty attendant in many instances on the legal measures necessary for obtaining the sites chosen, to defer the arrangement of the plan of the drains for some time after the contracts had been made, and as the risk of injury from the traffic of carts, &c. over them was thus avoided, advantage resulted from their non-execution at the outset of the building operations.

Mr. Pennethorne remarks, that the quantity of drains provided for by the contract was totally inadequate. This, in many instances, is the fact, and in consequence the excess which has been executed has been paid for extra. It is, however, proper to state that this arises chiefly from the original intention having been to make more general use of surface drains for the yards, instead of which covered drains have been provided, these being in most cases considered preferable.

The quantity of drains originally considered sufficient, was described in the contract, and the arrangement of them was decided on after careful consideration of the levels and other circumstances connected with the site; and as the quantity of drains executed must have been paid for, the only difference which the excess creates is, that it is paid for by actual measure and value, instead of having been added to the amount of the tenders in the first instance, which would of course have been done had an additional number of feet of drainage been specified.

In the instances mentioned, in which the contract did not provide for the execution of a specified quantity of drainage, no credit can be taken in the account; but it is not shown that any loss has accrued to the Unions from this omission, though it may be inferred that it would have been cheaper to have included the same in the contract. The contractor would, however, have calculated for the work, with its amount, and would have so increased his tender; and as the price allowed for the work is only what is fair and reasonable, no evil has resulted where there has been an omission of drains from the contract specification.

The sufficiency, however, of the arrangements actually made for the execution of the drains, is the most important consideration; and the arrangement which was made has been found, in practice, to work very successfully.

I now give some extracts relating to this subject from Mr. Pennethorne's Report, together with my remarks and explanations thereon.

Mr. Pennethorne's Report.	Architect's Explanation.
Page 9.	
In the return to an order of the House of Commons, dated 13th February, 1843, and ordered to be printed the 3rd May, 1843, is a plan which shows the disposition of the drains within and near to the yard walls of many of the workhouses; but this plan gives a very inaccurate idea of the drainage of any house I know, as it was given up to the Guardians; and few of the houses are so situated as to be susceptible of draining into a river or ditch, as shown thereon.	The plan of the drains given is that which has been executed at the Naas workhouse. As Mr. Pennethorne's statement implies that the return made to the House of Commons was an incorrect one, I have prepared a copy of the plan contained in the return (letter D in Appendix). This house was not inspected by Mr. Pennethorne, who, however, saw several other houses having an exactly similar arrangement of the drains at the time the buildings were given into the possession of the Guardians. In confirmation of this statement I have shown, by the side of the Naas plan, a drawing representing a house which Mr. Pennethorne surveyed, and on the cost of the drains therein he has particularly remarked.

Mr. Pennethorne states that few of the houses are susceptible of drainage into a ditch. It may be added that but in few instances would permission be granted for such an arrangement where such ditches exist, although the ditches may have good natural falls and other advantages. The reason for the objection alluded to will be given in a subsequent part of this explanation.

Mr. Pennethorne's Report.	Architect's Explanation.
Page 84.	
There has been, in my opinion, very great inattention to the drains of the buildings, and scarcely one house was well and properly drained when declared fit for the reception of paupers; notwithstanding enormous extra bills were incurred to effect the same, and the Guardians have been compelled to pay out of the rates for extending and improving the drains. When the sites were chosen no sufficient care was taken to ascertain whether water for the supply of the house could be procured thereon, nor	I will answer Mr. Pennethorne in his own words. He states (page 9), "Of course I could not well, and did not "much, attempt to examine the construction of the "drains. I believe generally they were well built, suffi-"ciently capacious, and with sufficient falls, but without "traps, and, owing to the want of water, they are of little "service in relieving the cesspools." This is no slight admission in favour of the arrangements and the construction of work generally, as this description of work, more than any other, is likely to be neglected, being concealed from observation. Had the traps been introduced as above recommended, much obstruction would have occurred in the drains.

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whether they afforded facilities for proper drainage; and, consequently, as to drains, many houses are now most inefficiently provided; and I fear that a proper drainage never can be acquired (except, perhaps, at a great cost) at Limerick, Edenderry, Scariff, Cork, Killarney, and Macroom.

Architect's Explanation.

Air-traps are very properly provided for these receptacles in London and other cities; but they would be useless in workhouses, because they would not be properly attended to, nor their use understood. The traps would, like the small-grated cesspools (constructed at the mouth of each drain in order to receive any sediment flowing therefrom), be neglected, and thus give rise to complaint; so little are those appliances understood in Ireland, that several instances have occurred in which it has been complained that the cesspools retained water!

If the expense of laying down lead pipes, &c., were not objected to, a supply of water would in some instances be advantageous, if arranged on a good system. It does not, however, follow that the non-existence of such an arrangement in respect to the cesspools is a serious defect; and it is observable that very little complaint is made on this subject, the discharge of the drains beyond the site being the matter most desired.

To prove that the construction and arrangement of the drains were carefully attended to, I refer to paper C in the Appendix, showing the instructions prepared for the guidance of the clerks of works, whose attention was directed to this important part of the work, by communications, both written and personal, as frequent as the individual character of each appeared to require.

I take leave, from my acquaintance with the drainage of public buildings both in England and in Ireland, to state my belief that the arrangements made for the drainage of the Irish workhouses are the best that could have been effected.

Mr. Pennethorne states that drains have had to be extended and improved by the Guardians, who have paid for the cost out of the rates; and that complaints have been made thereon. It is considered that Mr. Pennethorne has been misinformed; for although there are many instances in which the drains have not been continued beyond the site, they have in every case been carried beyond the buildings, and, with few exceptions, have been completed as far as necessary.

In order to show that Mr. Pennethorne has been misinformed, I will instance the cases of Strabane and Roscommon, contained in his Special Reports, on which he states, "At Roscommon a large tank has been built by the Guardians to intercept the sediment of the drains;" and at Strabane, "The drains were left, as usual, close to the outside of the yard-walls, to be completed by the Guardians; and they have been continued by them to the side of the high road."

In both these cases the drains seen by Mr. Pennethorne were completed *by the Commissioners* through the workhouse contractor, and they were executed at the same time as the rest of the drains at the respective buildings.

For the purpose of a comparison between the arrangement for drainage in the Irish workhouses and those provided in other public buildings in Ireland, I submit the following tabular statement:—

ABSTRACT of Information collected by the Architect of the Poor Law Commissioners relating to the Drains and Privies of most of the Public Buildings in Ireland.

Description of Buildings.	Soil from Privies conveyed away from the Building or Site by Drains.	Soil from Privies conveyed into, and removed from, Cesspools, without any over flow or discharge beyond Site.	Soil from Privies conveyed into Cesspools, but having over flow beyond Site.
Barracks	3	28	5
Bridewells	10	11	3
Court-houses	7	5	1
Hospitals and Infirmaries .	14	18	6
Gaols	11	9	4
Lunatic asylums . . .	1	6	..
	46	77	19
Total		142	

The inconvenience arising from the drains in several of the public buildings of Ireland has, within recent periods, caused the adoption of the system for them which has been executed for the workhouses, being practically the best; the use of cesspools has become common in most of the barracks, where a profit is made of the manure; and in many of the workhouses the manure has now become an article of sale, and will eventually become more so if properly attended to; and the instances are very few in which any inconvenience can result from such arrangement.

If Mr. Pennethorne had known some peculiar circumstances existing in Ireland, and the objection which is raised in most places to the discharge of any overflow drain into a lake, however large, or even into a large river, but more especially into watercourses, he would not so lightly have made general assertions on this head; for as nearly every acre of ground near

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public buildings is studded with cabins, which are supplied with water from surface springs, lakes, rivers, &c. (and not from wells, as in England), he would see how often it is impracticable to make use of the natural watercourses, which in many instances it has been necessary to avoid, and to form cesspools.

There are but very few instances in which difficulties will hereafter arise from having water overflow from the cesspools, because the occupiers of the adjoining lands are becoming sensible of the advantages derivable therefrom, and have been anxious to obtain the soil for manure. In other instances some have waited in order to make terms with the Guardians. That which Mr. Pennethorne states ought to have been done, would have been next to impracticable. That which has been done, has been done for the best, as will finally appear; and any inconveniences found in the first instance are fast remedying themselves.

In some instances where overflows beyond the site existed, the Guardians found the owners of adjoining lands benefiting by such an arrangement, and they have themselves stopped the overflow and made pits to keep it for themselves. This is not consistent with the supposition that the Guardians of other Unions are injured by not having an overflow to the drains beyond the limits of the site.

The preceding table will show that the public buildings have drainage very much like that of the poor-houses, and within recent periods, as before remarked, alterations have been made in those buildings having drains only, by constructing cesspools to the privies as in the workhouses, which experience determines to be the best mode.

It is said that the sites ought to have been selected so as to have afforded, in all cases a discharge for the overflow water from them. With every effort, however, this would have been impracticable; and where the sites consist of several acres, it may be so arranged as to be of little consequence that such a course was not taken. It may be presumed that those intrusted with the selection of sites for other public buildings, and having power in selecting, which the Commissioners had not, they would have done so; that they did not, however, the table before referred to clearly shows.

As an illustration of the arrangement of the drains for those workhouses where there is no discharge beyond the site for the overflow drains, I will take the case of the largest workhouse, much and frequently dwelt on by Mr. Pennethorne, viz., that of the Cork Union.

There is no discharge for the overflow water from the drains beyond the limits of the site of this workhouse, nor can there be any, unless at very considerable cost. In this respect, however, as before shown, it is not in a worse condition than many other workhouses which have good natural falls, but of which no use can be made in consequence of the prejudices entertained, that the water into which the overflow might be carried would be thereby impregnated. If the Cork workhouse had been erected in a position from which there might be good natural falls, it might ultimately be found to be, in no respect, advantaged thereby. On the contrary, it might have been in a worse condition; for the drains are, as now constructed, in every respect good and effective; they have good natural falls, and have been practically (and perhaps somewhat severely) tested since the completion of the building. The numbers in the house having at times exceeded by 200 or 300 the accommodation intended to be provided for in the building, viz., 2000.

The complaint against the drainage of this house refers, therefore, solely to the absence of a discharge for the overflow water from the main drain.

In the Appendix are given plans of the drains of this building, (letters E and F.) showing the levels of the site, the falls of the drains, and cesspools into which the main drains are discharged.

Cesspools have been used in the other Unions, similarly circumstanced. I give explanations on the subject in this case, with the view of showing, generally, that instead of the cesspools being, as alleged, a nuisance, they are, and ought to be, where properly managed, quite the reverse.

At various intervals, the most extraordinary statements and extravagant assertions have been made relative to the site of this building, originating either in ignorance of the facts of the case, or in wilful misrepresentation.

By reference to the plans, it will be seen there is a quarry-hole, marked X, in the bottom of which there is generally some water.

After a heavy fall of rain which took place in last spring, the water in this quarry-hole rose two feet higher than usual.

The Guardians of the Cork Union, on the 11th March, caused the following entry to be made on their minutes:—

Report of the House Committee.

> " The House Committee beg to recommend that immediate communication be had with the Com-
> " missioners for remedying the sewerage and drainage of the establishment, now forming a lake of stag-
> " nant matter in front of the building.
>
> " The tunnel erected at considerable expense, 110 feet long, 8 feet broad, and 6 feet deep, for
> " removing this defect, having already overflowed, is filling up every hollow in the adjoining grounds,
> " and of course impregnating the wells and springs of the entire neighbourhood with its offensive matter.
> " Until this defect is removed, the Committee are of opinion that no expenditure should take place but
> " for necessary repairs; as they consider the abandonment of the house inevitable, unless drainage can
> " be effected.
>
> " They are therefore of opinion that the tunnel is useless, and should never have been erected;
> " although its expense is attempted to be charged to the Union, which the Committee recommend
> " be submitted to the Commissioners, whose attention is immediately required to this important
> " subject, not only for protecting the health of the inmates, but also the surrounding community."

Signed, &c.

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The tunnel here referred to consists of two large tanks provided for the reception of the overflow of the drains.

In fulfilment of directions received from the Commissioners, I attended a meeting of the Guardians in Cork, on the 15th of April last; and, after having read the foregoing resolution before the Board, I stated that I thought it would be admitted that the facts of the case were at least greatly exaggerated therein, as I could not obtain any information showing that the wells in the vicinity of the workhouse had been injured; and the well on the workhouse site, which, being the nearest to the drains, would be the most likely to be affected by them, was then, as it had been from the beginning, perfectly free from any impurity. I also stated that I could not perceive that any effluvia arose from the tanks; and that it would appear, even to any stranger, that the small quantity of water which lay at the bottom of the quarry-hole (as shown on plan, letter E, in Appendix before mentioned), was not more than two feet deep; and that, after the heavy rains which had fallen at the period the resolution was passed, it had not been more than two feet higher, and not *then* even as high as the top of the tank, as shown by the water-stain.

I also remarked that the water in the quarry-hole could never have occupied a much greater surface, the margin being mostly steep, and the water was never less than about 12 feet below the level of the floor of the entrance building; and that the water would entirely disappear if a few loads of earth, remaining from the excavations of the foundations of the workhouse, were thrown into the hole; and that such work could easily be done by the paupers in the house; and that the excavated earth was left on the site with this intention, as it was not required that the quarry should be kept open.

One of the tanks (on the 15th of April), when I visited the house, was empty, and the other was not half full. They were arched over, having a circular hole at top; and if this were covered with a large stone no effluvia could possibly arise therefrom. If asked in what respect these tanks are objectionable, it may perhaps be stated that they will become full, and that expense will be incurred in the removal of the soil. In anticipation of this objection, I stated in my interview with the Guardians, that I believed that they would, before two years had elapsed, not only withdraw their objection to the want of an overflow drain, but that they would be glad to prevent the waste of any of the soil (a course adopted in some other workhouses); and I stated that, if a pump were placed over the tank, the water raised would be found to be very valuable liquid manure, being mixed in a great degree with the urine and soapsuds from the workhouse.

It may appear somewhat surprising, after such repeated complaints on the subject of the accumulation of soil in the cesspools, that the Cork Guardians should, since my attending them, have refused an offer made for its removal without expense to the Union; and especially that the gentlemen who have been most active in the objections to the arrangements made, should have opposed the removal of the soil on the terms proposed, because, as I am informed, the soil was stated as "too valuable to be given away." In accordance with this view, the Guardians have actually advertised for tenders, as will be seen in the "Examiner" newspaper, of the 14th May, 1844, from which the following is an extract:—

> "Tenders will be received for keeping the pump outside the workhouse ground, on the passage-road, "in order, for 12 months, from 1st June.
>
> "*And for the liquid manure of the cesspools, and drainage of the workhouse, for the same period.*"

I believe that the Cork workhouse can be proved, by reference to the mortality, and the generally good health of its inmates, to be placed on one of the most healthy sites in this country. In support of this statement, I refer to the testimony given at the workhouse, in the visitors' book, by Dr. Bullen, who holds a Government appointment as medical inspector for the province of Munster, a copy of which has accidentally come into my possession.

> "12th May, 1844.—I have this day been accompanied throughout every department of the work-"house by Dr. O'Connor and Mr. Swiney, and feel great gratification in being able to express the "warmest approbation of the good order, cleanliness, and excellent arrangement in which I found the "hospital and the several divisions and parts of the whole establishment. What struck me very forcibly "was the generally healthy aspect of the inmates that were not infirm, and the very great eligibility of "the situation, and of the building altogether, for the reception and treatment of the infirm, and of per-"sons incapacitated for labour by chronic diseases.
>
> "(Signed) D. B. BULLEN, M.D.,
> "Cork."

That the water of the well on this site has not been rendered impure, but remains of good quality, is proved by the analysis made by Dr. Apjohn, of Dublin, for the Poor Law Commissioners, at the request of the Board of Guardians, in order to remove all doubt on the subject.

(Copy.)

SIR, 28, *Lower Baggot-street*, 23*rd May*, 1844.

I HAVE made a careful analysis of the water which you forwarded to me by the direction of the Poor Law Commissioners, which has conducted to the following results:—

Saline contents in an imperial gallon, estimated in grains:—

Carbonate of lime, with trace of carbonate of magnesia	17,349
Sulphate of lime	10,853
Chloride of sodium, with a minute amount of chloride magnesium .	11,883
	30,085 grains.

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I may add that its specific gravity was but 1·0005, and that it did not include more organic matter than is usually present in good water. In connexion, however, with this point, it is fit I should observe that, when the water was poured out of the bottle in which it reached me, a number of excessively thin films of matter, apparently organic, were seen floating through it. They appeared to me to be shreds of the colouring matter which separate from port wine; and I have little doubt they proceeded from the bottle in which the water was collected, and are not proper to the water itself. After the statement just made, it is scarcely necessary for me to say that I consider the specimen which I have examined as a good and tolerably soft water, and well suited as a drink for man or other animals, and for culinary and other domestic purposes.

I am, &c.
G. Wilkinson, Esq. (Signed) JAMES APJOHN.

After such evidence can it be said that there are any just or reasonable grounds for complaint on account of the drainage?

The state of the drainage in Cork workhouse has, from the misrepresentations made, excited public attention, Mr O'Connell having, about 18 months since, in a published letter on Irish Poor Laws, declared "*that* the Cork workhouse was without sewers, and never could have "any." I was informed afterwards that he never saw the house, and was misinformed.

It was especially desirable, therefore, that Mr. Pennethorne should have made a careful inquiry in this case, and an unbiassed report. That he has not done so is manifest from his remarks on the quarry hobs on the site, some of which it may be observed have been made available for the tanks above referred to. He says (page 19) that in consequence of the contractor having quarried on the site, "it became necessary to build the boundary wall deeper in "those parts than would otherwise have been required, adding thereby to the cost of it a sum "of probably not less than 200*l*."

Had Mr. Pennethorne exercised proper professional judgment he would have seen, as the walling in question is quite exposed to view, that, from its extent, the cost could not have exceeded 60*l*.

With regard to the expense stated to have been incurred in consequence of the contractor having quarried on the site, it is, however, necessary to state that *neither the contractor nor any other person has quarried on this spot* since the site was taken possession of for workhouse purposes; but the hollow in question existed previously. It is presumed that Mr. Pennethorne could not have obtained the statement he has made from the Board of Guardians, neither could be have received from them the information he has given in his report, that " new day rooms "have been built" by them, *as no such rooms have been built.*

The Unions in which complaint is stated to have been made of the drainage, are, Belfast, Londonderry, Dunshaughlin, Balrothery, Edenderry, Castlederg, Limerick, Ballinasloe, Dungarvan, Omagh, Carrick-on-Suir, Fermoy, Dundalk, Cork, Cookstown, Tralee, Ballymoney, Roscommon, Antrim, and Killarney.

Mr. Pennethorne's general Observations and Statements on each Case.	Architect's Explanation.
Belfast, page 25. The general observations made as to drainage and privies will apply very much to this house, and the complaint under this head needs not any special remark. The Guardians did not lay before me any statement of expense incurred by them in repairing the drains and making new ones.	See architect's explanation on Mr. Pennethorne's general observations. There certainly appears here to be, even by Mr. Pennethorne's own showing, but little ground for complaint.
Londonderry, page 28. As to the drainage, it is only necessary to refer to the general remarks on this subject, there not being now any particular grievances under this head.	Ditto. Ditto.
Dunshaughlin, page 28. The charge in the extra bill for drains (not including rain-water drains), over and above those provided by the contract, was 100*l*. 17*s*. 4*d*. Notwithstanding this charge, the drains were left imperfect, and the Guardians put to the cost of above 100*l*. more to make new drains. This fact I inquired into, and was satisfied that the drains made by them were necessary. The amount expended by the Guardians I quote from them, not pledging myself to its correctness. Their outlay must have been considerable, and not at exorbitant prices; for I find they paid Mr. Bernard Butler for these drains much lower prices than were allowed to the contractor.	The Dunshaughlin workhouse site is surrounded by a ditch, the height of the water level, which prevented the fall of the drains being greater than laid down. The ditches of the adjoining lands having been much lowered since the completion of the house, and the water level of the ditches about the workhouse site being lowered thereby, the Guardians took advantage of this circumstance by constructing a new large drain through the centre of the site, in order to carry the water of a stream through it, which prior to the sinking of the ditches in the adjacent lands was not practicable.

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Mr. Pennethorne's general Observations and Statements on each Case.

Architect's Explanation.

Balrothery, page 29.

The defect complained of respecting the drainage appears to me to arise from the same cause as described at Dunshaughlin (the last house reported on), viz., that in building the house the ground-floor was not kept up to a sufficiently high level.

I apprehend that the drainage in this instance has reference more to the drainage of the land of the site, than to the building; and to effect the drainage of the site, a plan was made by which the site could be well drained, as the cultivation of the land was proceeded in.

Edenderry, page 30.

The proper drainage of the building *within the walls* having been unprovided for in the original contract, was afterwards considered perfected at a cost of about 164*l.* 1*s.* 4*d.* (independent of rain-water drains); but the final completing and perfecting of the drains *outside the walls* appears to have been left, as usual, to the Guardians.

The complaint of the Guardians as to drainage inside the walls refers chiefly to the privies which I have above spoken of. Their principal complaint is in regard to the want of outlet or delivery for the drains beyond their own boundary.

I have already stated that in my opinion no workhouse should have been commenced until (among other essentials) a perfect drainage had been secured.

Pages 30 and 31.

I know not what rights may exist, nor whether any or what special agreements may have been made; but in ignorance of these matters I should presume that the ground, when purchased, could not lose its natural right of drainage along the water-courses of the country, and the more so, that having been sold for the purposes of a workhouse, and all the land adjoining belonging to the vendor, the necessities for that purpose may be supposed to have been fully known and contemplated by the contracting parties at the time of the sale.

As to these subjects, however, I am not able and am not required to offer an opinion.

The drains of this building are perfect, except as to the discharge of their overflow, which, however, might easily be effected by constructing a small drain under the road, and which could be executed at small expense by presentment by the grand jury, provided the owner of the land on the other side of the road consented thereto. The land on the opposite side of the road has deep ditches, with a good fall into the adjoining large bog of Allen.

Drains of the above kind have in the instances of several other Unions been carried across a road; but I believe there are peculiar circumstances operating at this particular locality. It is not shown that the architect has omitted to do all that was reasonable and practicable for him to do in this instance.

Castlederg, page 34.

The main drains were continued by the contractor beyond the walls of the building, and were made to empty into a ditch or stream, forming the front boundary of the workhouse ground. They have since been in part taken up by the Guardians and rebuilt upon a lower level. Whether the necessity for this alteration arose from a change being made in the direction of the stream, or whether it was made to give a facility of draining the upper lands, I did not ascertain; but so far as the subject was explained, it did not appear to me that the drains, as left by the contractor, were insufficient for the workhouse.

This site is a peculiar one, but I am not aware that any original defect existed in the drains, except, perhaps, in that portion of a drain which was carried over some new made earth, where the ground had to be raised. This sunk afterwards, and I believe it was relaid by the Guardians.

Limerick, page 36.

(After remarking on the quarrying on the site, Mr. Pennethorne says,) These three excavations are now converted into pits for the reception of the drainage of the house, and from them there is not an outlet for overflow.

The pit on the north side may be 50 feet square and 20 feet deep; the water (when I saw it) stood two feet deep, and was very offensive; it was swarming with rats, and as it cannot penetrate the rock, it must in great part evaporate in summer.

The pit on the south side has been in part converted into a dung-pit, and leading to it is a very large sewer, or rather tank, built by the Guardians for the liquid stuff; the remainder is being partially levelled.

The quarry near the south-west angle has been filled with large loose stones, covered with mould like the rest of the garden. The sewer has been made to empty into this pit in expectation that the drainage will soak away.

Such drainage for a house to contain 1600 persons I consider extremely defective and improper.

See the remarks on the drains of the Cork Union workhouse, where this subject has been fully entered into.

The offensiveness of the pit is surely to be attributed to the officers of the establishment having neglected to use diligence in their cleansing, as has been shown to be necessary, and on which proper instructions for their guidance have been given.

The drainage, if properly attended to, ought not to be defective, for the same reasons explained in reference to the Cork site. The drains of this building are not stated to be defective; the discharge at the end of the main drains has been provided for by the architect in the best way practicable.

Ballinasloe, page 37.

The complaint made as to the sewerage and drainage arises chiefly from the cause I pointed out, when speak-

At the rear of the site of this workhouse there is a ditch, which I have generally seen full of water, and it communicates with the river by another ditch, which

Mr. Pennethorne's general Observations and Statements on each Case.	Architect's Explanation.
ing of the Edenderry drains; but here they are probably much less offensive, being at a distance from the main entrance. The length of the drains in boys' and girls' yards, from the privy-pits to the cesspools, is 25 feet each, and these drains for want of sufficient water to scour them get choked up.	runs through the land, intervening between the workhouse and the river. If the water-courses of these ditches be kept clear there certainly should be no difficulty, as the impediment which exists in the case of Edenderry is not encountered here, although Mr. Pemethorne attributes both these instances to the same cause. I am not aware what better drainage could have been adopted, except that the water-courses would be better if they had a greater fall. I, however, believe, no site could have been obtained possessing equal advantages to that chosen.
Dungarvan, pages 44, 45, 46. No Report.	
Omagh, page 49. There was not any defect in the drains pointed out to me, or that attracted my notice; and the elevation of the building is such as to induce a belief that it must be well drained, provided that there be a right of drainage from the land.	I am not aware of any cause for complaint in this Union.
Carrick-on-Suir, page 51. The drains required for the building were known to be as essential when the contract was entered into as when the building was half completed. No change took place in the situation or level of the building, or in the system of drainage; notwithstanding which the quantity provided by the specification was not above one-tenth of that found to be necessary for the completed building.	It certainly does not clearly appear in what particulars the drains are "badly built," "incomplete," or "insufficient." Mr. Pennethorne, in page 9, says, the plan of the drains given in the return made to Parliament in 1843 gives an inaccurate idea of the drainage of any house he saw, as given up to the Guardians. This case is represented in a plan, B, in Appendix, as one which, it is asserted, is in every respect parallel to that contained in the return. It is doubted whether Mr. Pennethorne, when he surveyed this building, inspected the arrangement of the drains. The remarks he has made hereon is from the statements of quantities, &c., in the contractor's account.
Fermoy, page 71. (In concluding his remarks on this building, Mr. Pennethorne states—) That, to render the drainage as perfect as the locality will permit, and to obtain a constant and sufficient supply of water, and to make all the alterations and additions which are still absolutely necessary for the convenience and discipline of the establishment, will very considerably reduce the saving of 3000*l.* supposed to have been effected.	The drainage of this house, if properly attended to, would be quite sufficient. The drains as originally constructed for the barracks remain, and others have been added; but they have been greatly neglected by the workhouse officers.
Dundalk, page 54. The drains have all been built to the yard walls, from which points they were expected to have been continued by the Guardians. The building, with the drains so left, could not be considered complete for the reception of paupers. It is very doubtful now whether there is any right or power of drainage beyond the boundary of the workhouse-ground, and probably the Guardians must have recourse to dung pits. When I visited the house, I found the mouth of every drain buried in newly-made ground, and not a person in the house knew where to find any of the drains, and were scarcely aware of the existence of cesspools, although there was a correct plan of the same furnished by the architect, and deposited in the office of the clerk of the Union.	The site, which is about a mile from the town, is bounded by a running stream; it has, however, been considered objectionable to carry the drains into it, as was originally intended. A plan of drains is prepared for deposit at all the workhouses, but it is frequently much neglected, as stated in this case.
Cork, page 57. The drains of the building, at the time of his (Mr. Phelan, A. C.) examination, were not began to be built. He may have expected that a right of drainage over the adjoining ground northward had been secured; but now that they are completed the drainage runs from them into large cesspools or tanks, there being no other receptacles unless they were to empty into the stone-quarries, which would possibly affect the	See particular explanations relative to the drainage of this house, which has already been considered, and the statements, it is deemed, will be considered satisfactory and conclusive.

2. Drainage.

water in the wells. I have already alluded to this subject in my remarks as to the sixth complaint, regarding the execution of the works of the buildings; also when reporting generally as to the sufficiency of the arrangements for drainage, and also in my reports upon the houses at Edenderry, Limerick, &c. It will therefore be sufficient to observe here, that there is not greater cause for those remarks anywhere than there is at the Cork workhouse, where 2273 paupers have been congregated at the same time, and where the drainage for such numbers must and ought to have been considered of paramount importance.

Cookstown, page 59.

The hoppers to the privies were found to be quite choked, and great complaints were made respecting them; but I could not ascertain whether this arose from bad construction or from negligence on the part of the master.

I am not aware what Mr. Pennethorne intends by the term "hoppers," as used with reference to privies.

In London this term is commonly applied in respect to water-closets; but being unable to understand it in its present application, I am not able to offer any explanation, further than stating, that the construction of these privies is similar to that adopted elsewhere.

Tralee, pages 60, 61, 62, 63.

No Report.

An expenditure is yet to be incurred for walling some open drains which are formed on the site, and the money has been provided.

Ballymoney, page 63.

I understand the complaint as to the drainage to have reference only to the surface-drainage, and to be easy of remedy by the Guardians themselves.

These drains are, I believe, well built.

Roscommon, page 65.

The drainage of this building did not appear to me, as it now exists, to be defective. *A large tank has been built by the Guardians for the reception of all the sediment from the drains*, with an overflow into a ditch or running stream by the road-side; and the occasional stoppage of this overflow by floods in winter will probably not greatly inconvenience the inmates of the workhouse.

The large tank stated to have been built by the Guardians was not built by them. It is a pit or cesspool built near the termination of the main-drain, to intercept the sediment which would flow from the drain. This tank or pit was formed in consequence of its having been represented that the water in the ditch (though far distant from the town) would be polluted. This work was executed *by the contractor*, together with the other drains. Had not this pit been formed, it would perhaps have been necessary to confine the overflow-drains to the limits of the site, as has been the case in other instances where equally good natural falls prevail.

Antrim, page 72.

The main drain has been carried beyond the front of the house, and under the high road, and is at present emptied into a small ditch, or rather upon the surface of the field beyond. It is impossible that this can be allowed to continue long so near the town; it may be found advisable to change the direction of the drainage: in either case the Guardians will have to incur further expense to make the drainage perfect.

It also appeared to me that the ground-floor of the building has not been kept so high above ground as was desirable to allow of good drainage.

The arrangements made for the drainage are the best practicable. The overflow is carried into a ditch beyond the site, from which there is a natural fall into the river, which will not be interrupted.

Killarney, page 82.

The house has been built on a gravelly soil, and to obtain sand for building the house, large pits have been dug on the site; these pits remain and the sifted stones were lying in large mounds when I was there on January 8th. I have already referred to these pits in my general observations, and therefore need only add here, that the drainage provided for this house is into pits so formed, that the well is only 22 feet deep, and I am most apprehensive that the water will in time be contaminated by the drains.

See remarks of the Cork House, which are applicable to this case.

3rd. *As to the Execution of the Works of the Buildings.*

3. Execution of the Works of the Buildings.

Mr. Pennethorne states as follows, page 3:—

"The Guardians of 24 Unions, out of the 58 visited where new buildings have been erected, "have complained of the execution of the works, viz.—

"Belfast, Londonderry, Dunshaughlin, Balrothery, Edenderry, Castlederg, Limerick, Rathkeale, "Dungarvan, Trim, Newry, Omagh, Kilkeel, Carrick-on-Suir, Carrick-on-Shannon, Dundalk, Cookstown, Kilrush, Tralee, Cootehill, Ballymoney, Roscommon, Coleraine, Wexford.

"The complaints may be classed as follows:—

"1st. That the wet penetrates, or has penetrated, through the rubble walls of the house.

"2nd. That the wet penetrates, or has penetrated, the roof, against the chimney-shafts, and "where low buildings join to higher.

"3rd. The wet penetrates, or has penetrated, the roofs at the ventilators.

"4th. That the wet penetrates, or has penetrated, through all the windows, and that the windows "have not been revealed.

"5th. That the mortar floors have failed, and have required, or do require, to be replaced.

"6th. That the yards were not levelled, and that the ground within and without the walls was "left very rough.

"The above complaints have been made, more or less, by the Guardians of all the 24 Unions, and "will be noticed more at length in the report on each particular house complained of."

From the terms here used by Mr. Pennethorne, the reader of his Report is led to suppose that all the Unions named have complained in a greater or less degree of each of the six defects above enumerated. By reference, however, to the letters of the Guardians given in pages 101 to 124 of Mr. Pennethorne's Report, it appears that of the 24 Unions named—

11	have made to Mr. Pennethorne	complaints	falling within class,	No. I.
3	,,	,,	,,	No. II.
5	,,	,,	,,	No. III.
7	,,	,,	,,	No. IV.
4	,,	,,	,,	No. V.
2	,,	,,	,,	No. VI.
Total . 32				

Under all the above-named heads of complaints made by all the 24 Unions, the number does not exceed 32. What are the results of Mr. Pennethorne's inquiries into the grounds existing for them? "The particulars," he states, "will be noticed in the report on each particular house complained of."

Referring to his special reports on the 24 Unions in question, it will be found that he has disposed of the whole of the 32 complaints in the following manner.

On 15 out of the 32 complaints he has made no report, either favourable or unfavourable; of the remaining 17 there are 10 included in class, No. 1. The entire number of complaints, therefore, made by 24 Unions, under six separate heads of complaint, instead of amounting, as they ought to do, according to Mr. Pennethorne's statement to 144, amount in fact to only 32; and most of them, as will be hereafter seen, are complaints of a trivial and unimportant nature.

These results have been derived from a careful comparison of Mr. Pennethorne's special reports with his general statement, and it is only by such means that the injurious effects of the latter can be dealt with, and the proper weight which ought to belong to them correctly ascertained.

I now proceed to remark on each of the 17 cases on which Mr. Pennethorne has made Reports on the complaints above stated.

Of these it has already been said that 10 are included under class I, and are, Edenderry, Castlederg, Rathkeale, Dungarvan, Trim, Kilkeel, Carrick-on-Shannon, Tralee, Coleraine, Wexford.

Of the remaining Unions two are included under class III., namely, Kilkeel and Ballymoney, Two under class IV., namely, Edenderry and Roscommon. Three under class V., namely, Balrothery, Cookstown, and Wexford.

Mr. Pennethorne's Reports on the 10 Complaints under Class No. 1. That the wet penetrates, or has penetrated, through the rubble walls of the house.	Architect's Explanation.
Edenderry, page 29. The damp penetrated there (male infirm dormitory) in a slight degree; the water drips from the roofs of the two wings (the eaves gutters having been improperly omitted) and blows against the upper parts of the walls which are thereby kept damp.	The slight dampness of the walls is owing to the want of eaves gutters, which appear to be desirable for the flanks of the wings. No expense has been incurred for them, and a few feet of iron eaves gutters are evidently all that are wanted to prevent the walls being kept damp. The dampness does not, therefore, arise from bad work in the walls.
Castlederg, page 33. The wet did penetrate the walls, but last summer they were covered externally with a coat of dashing.	The walls are now dry in consequence of the application of the rough cast so generally used through the country, and almost universally applied to all the buildings in the neighbourhood.
Rathkeale, page 39. The walls did admit wet very much; and those most exposed to the south and west, including also the north wall of the infirmary, were raked out and pointed between the 12th September and 26th November, 1842. When I visited the house January 10th, 1844 (a fine day) there was a great appearance of wet in the boards of the platform of the upper female dormitory for some distance from the wall (say two feet) and also on the ends of the timbers and joists of every	It does not appear that these walls are damp from any defective construction. They were erected in a very wet season, and the mortar suffered from continual rain, which kept the walls damp; a highly respectable contractor being employed in the erection of the building, he willingly and most liberally agreed, at his own expense, to rake out all the external joints of masonry which were injured, and repoint the mortar joints of the walls. The dampness is considered in great measure to have arisen, from condensation on the interior surface of the walls, from causes which will hereafter be explained.

3. Execution of the Works of the Buildings.

Mr. Pennethorne's Reports on the 10 Complaints under Class No. I. That the wet penetrates, or has penetrated, through the rubble walls of the house.	Architect's Explanation.
floor lying in the flank wall of the women's wards, as to this dampness, I have a letter before me from the medical officer, to the chairman, dated November 27th, 1843, reporting "three deaths "since last Saturday," ascribing the same to the damp of the walls, describing how the wet communicated to the beds, and calling for some "immediate, even temporary remedy." This was applied in the shape of a deal lining, where the heads of the beds were placed. I removed one of the boards of this lining, and found the surface of the wall behind perfectly wet.	
Dungarvan, page 46. I have already noticed this subject in my remarks on the execution of the buildings generally, and therefore I have only to refer here to the Report of Mr. Barron, who states that in his opinion the wet which still penetrates the walls is admitted by the inferior quality of the mortar and of the bricks, and by the want of lead flashings on the gable roofs. The house would not now have shown so much damp if it had not been standing empty for two years, but the want of occupation will account for but a very small portion of the damp which now appears.	It has been arranged to remedy some damp admitted at the gables, but the dampness is not attributable to the mortar, or to the bricks. The house is situated in a damp climate, and has been finished two years, and left without fires therein, some damp may, therefore, be reasonably expected. There was a time when the house was perfectly dry.
Trim, page 46. The Guardians did not attend, nor appoint any one to show the defects they complain of; it is therefore only surmised that the damp referred to is that, which to some extent penetrates the roof of the infirmary where it adjoins the chimney shafts.	This is a well built house and nothing is shown to the contrary.
Kilkeel, page 49. The wet penetrates very much through the walls and through the roofs, for want of lead-flashings, and at the ventilators.	This is a well-built house. The contractor has dressed some of his work too much, in imitating cut-stone masonry, and these parts have been most damp. The dampness, however, is now being remedied.
Carrick-on-Shannon, page 52. I have placed this house as an average, because the drainage is good, the windows are good, being wood, and the timber work is fairly done, though not first-rate workmanship, and because the damp which now penetrates the walls may be stopped by pointing or external cementing, if the work be well done and in a good season. But at present the damp which penetrates is very serious, and is not only detrimental to the inmates, but is rotting the girders of the floors. I cut into the walls of the house, and found that the stones were not badly laid, and that the pockets or hollow places were not large, but the mortar was very bad, and I apprehend it is the inferior quality of the mortar, which in great measure causes the walls to admit the wet.	The remark, "If the work be well done and in a good season," appears sufficient to show the extent and the cause of dampness in this case. The external joints of the masonry of the exposed aspects require to be re-executed, and then the dampness will, doubtless, disappear. The walls are well built.
Tralee, page 60. The damp penetrates very considerably, although the Union has been charged 118*l.* 15*s.* 4*d.* for outside cementing, and more must yet be done.	Arrangements have been made for remedying the dampness occasioned by the very exposed aspect of the building. The sea-gales, which come in a direction from Blenerville, are very severe and penetrating.
Coleraine, page 67. The wet penetrates the walls in several parts; and consequently the ends of the joists and girders show much damp, which in the course of time must cause them to rot.	The external joints require repointing; and if these are well executed, no damp will penetrate afterwards.
Wexford, page 67. The walls were built with bad mortar, with not sufficient lime, &c., The timber work was well done, but shows a great deal of damp on the ends of joists and girders.	This is a well-built house, and executed by a most respectable contractor, who also built the Waterford workhouse, against which there is no complaint. Whatever dampness prevails here, is attributable to the peculiar nature of the rock. The contractor endeavoured to get a different rock—a sandstone, but could not succeed. Had the Commissioners possessed the same powers as are given to other Boards, he would have succeeded.

APPENDIX TO REPORT.

3. Execution of the Works of the Buildings.

Mr. Pennethorne's Reports on Complaints under Class No. II.	Architect's Explanation.
That wet penetrates, or has penetrated, the roof against the chimney shafts, and where low building join to higher.	
Kilkeel, page 49. The wet penetrates through the roofs for want of lead-flashings.	If lead-flashings are required, they could be added now almost as easily as before. The dampness, however, is considered to arise from another cause, which could be explained. The lead belonging to the contract which Mr. Pennethorne states was laid too thin at Coleraine, could, it is believed, be also shown to have been otherwise.
Carrick-on-Suir, page 51. The extra cost of the plumber's work has arisen from the omission to provide lead-flashings: at this time the wet penetrates in parts where flashings have not been laid.	
Coleraine, page 67. The wet penetrates the roofs where they adjoin the walls. Chimney shafts, large lanterns, and ventilators, from the want in some places of lead-flashings, and in others from their being improperly laid with thin lead.	
No. III. That the wet penetrates, or has penetrated roofs at the ventilators.	
Edenderry, page 29. It (the damp) also penetrates the ventilators, and in other parts for want of proper lead-flashings.	The dampness, it is considered, arises chiefly, if not wholly, from the louvres of the ventilators having been neglected: if these be neglected, the driving rains will necessarily penetrate them here and elsewhere.
Kilkeel, page 49. The wet penetrates through the roofs for want of lead-flashings, and through the ventilators.	
No. IV. That the wet penetrates, or has penetrated, through all the windows, and that the windows have not been revealed.	
Edenderry, page 29. The wet penetrates, from the casements not fitting the frames, and from the frames (which are not revealed) not fitting the stone-work.	The windows of these houses now, doubtless, require to be painted; all the windows ought to have a coat of paint within two years, at the furthest, after their completion; because the wood-work of the frames, however well seasoned, if it be constructed in damp weather, will certainly shrink to some trifling extent, and a slight separation from the iron lights will be caused thereby. It is not customary to reveal such windows in rubble walls, nor are they so done in the stone buildings of the English workhouses; and, that such work is unnecessary, is proved by there being no dampness in the majority of the buildings. The windows of the new buildings (which have been constructed with no greater care than those first built) are stated to be satisfactory: these will, however, after the lapse of time, and from the same cause, admit damp, if they do not receive the necessary attention.
Rathkeale, page 39. The windows of all parts of the house let in much wet. Wood fillets have been added to them, but with little effect.	
Coleraine, page 67. The wet also penetrates the windows where the metal sashes do not fit the frames, and also between the frames and stone-work, there being no reveals, and also under the sills of the windows.	
No. V. That the mortar floors have failed, and have required, or do require, to be replaced.	
Edenderry, page 29. The clay floors are in every part defective, and require a thorough repair, and in parts to be replaced with boarding, tiles, or flagging.	See remarks hereafter on clay floors; in which the reason for adopting them is given.
Rathkeale, page 39. Such of the mortar floors as have not been renewed are in a very bad condition.	See above.
Carrick-on-Suir, page 51. The mortar floors are generally good, having only cracked near the doorways, and in some portions of the infirmary.	See above.

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3. Execution of the Works of the Buildings.

Mr. Pennethorne's Reports on Complaints under Class No. V. That the mortar floors have failed, and have required, or do require to be replaced.	Architect's Explanation.
Castlederg, page 33. The mortar floors are bad.	See above.
Tralee, page 60. The clay floors are very bad.	See above.
Coleraine, page 67. The clay floors I dug into, and found to be a thin coating laid upon the stone-cuttings and other refuse from the building of the house.	See above.
Wexford, page 67. The clay floors are everywhere defective.	See above.

Page 3.

With reference to the more special complaints made on the subject of the "improper excavations for stone or sand," "the rubbish heaps left behind," "the scantlings of timbers," "the brickwork," "slating and plastering," "the flues," "the setting of boilers," &c., these, in addition to the foregoing six classes of complaints, Mr. Pennethorne states will also be noticed more at length in the report on each particular house complained of.

On examining the particular reports referred to, I find that a few only of these matters are very partially noticed, and most of them are not remarked on at all.

The result of the reports on the 24 Unions, in reference to these points, is as follows:—

In three instances the quality of the bricks is commented on, viz., Castlederg, Omagh, and Dungarvan.

In five instances the execution of some plastering is noticed, viz., Belfast, Coleraine, Ballymoney, Dundalk, and Wexford.

In one instance the rubbish heaps are stated to have been left behind, viz., Kilrush.

I now give such explanations as it seems necessary to give on each of these points.

As respects the objectionable quality of the bricks—in one of the instances adduced, viz., Castlederg, the Guardians have contracted for some additional work, and have specified, for the guidance of the contractors, that the bricks to be used are to be obtained from the same place as those used in building the workhouse.

With regard to the heap of rubbish left behind—it is nothing more than the excavation for the foundations and surface of the yards, which the contractor was required to deposit on the site. The "rubbish" is not what is understood by that term in London, where it is customary to provide in the specification for the removal of all rubbish, but it is soil, which is removed to some portion of the land surrounding the house, which in this solitary instance it is complained has been left. The Commissioners have in numerous instances experienced great difficulty in restraining contractors from removing soil, and there are but very few localities in which persons could not be found who would very willingly remove for their own benefit the soil so left, but which the Guardians have very properly objected to.

In the 24 Unions, then, in which it is stated special complaints have been made on not less than eight distinct subjects (besides an *et cetera*), and which are stated to be reported on at length, it appears that the total number of complaints, under all the eight heads so reported upon, amount to only nine, namely, five in reference to the plastering, two in relation to the bricks, and one relative to "rubbish heaps;" and under the remaining five heads specially named, no one complaint has been reported on or noticed, except the quarrying the stone on the Limerick site, hereafter to be more fully explained.

OBSERVATIONS on the first complaint, "That the wet penetrates, *or* has penetrated, through the rubble walls of the house."

Mr. Pennethorne's Reports on Complaints under Class No. I.	Architect's Explanation.
This complaint is very general, and few of the workhouses can be said to have had the walls originally built waterproof, although some have been altogether well built and have resisted the wet. The walls of all the workhouses have been built of rubble work, with squared quoins, window jambs and heads (the jambs and heads of the windows being sometimes of brick). The stone has been sometimes quarried on the site, frequently within a short distance, and seldom further off than seven miles; the *lime* has been most frequently burnt from the same	The complaint of damp by reason of the wet penetrating the walls is said to be very general. A reference to the particulars set forth in the foregoing 24 Unions, in which this complaint stands first in importance, will show that the complaints are neither numerous nor borne out by facts which justify them. The walls of the workhouses have been built with rubble work, as described by Mr. Pennethorne in page 84. In his concluding remarks he, however, states— "But the most false economy was in having the walls built "with rubble work, too thin for such a mode of building, and "without any precautions taken to keep out the damp, whereby "great expense was afterwards incurred for cementing, dashing, or pointing the houses on their weather sides; and now "very few of the buildings can be called proper, staunch, and "waterproof."

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3. Execution of the Works of the Buildings.

Mr. Pennethorne's Reports on Complaints under Class No. 1.

stone; the *sand* has been derived from many sources, sometimes from a running stream or river near at hand, sometimes (where there was not stone) it has been dug on the site or near to it (this being inferior to river sand, and perhaps of a soft loamy nature), and sometimes, as there is reason to think, it has been brought from the sea side.

Architect's Explanation.

It is necessary to explain that rubble masonry differs from what is technically called "coursed and squared," or "dressed" masonry, or cut stone work (which Mr. Pennethorne prefers, as will hereafter be shown), in having the stones used in the shape they have when raised from the quarry, with little or no more hammering or working than is necessary to bed them properly, and make a vertical surface on the exterior of the walls. In cut stone masonry, where the stones are squared and laid in courses, the stones have to be dressed to certain regular forms to make a smooth external surface, and the consequence is that the solid bedding of the stones is often sacrificed to obtain a superficial display, the interior of the walls being of rubble masonry, while the front is laid with stones more closely and evenly fitted, and too often with joints improperly backed or filled with mortar, in order to avoid disfiguring the work; the consequence is that the wall is built with two kinds of masonry, the external half having much less mortar than the interior half, and the mass settles unevenly, and the unity and durability of the work are consequently much injured.

The cost and sound construction of walls thus built vary much, according to the nature of the stones employed. Where they can be worked on their edges, the flat bedded slate-rocks and the calp, and upper limestones, are best suited for such work, while the carboniferous limestones, granites, and basalts, being of irregular angular shapes, require great labour and an immense expenditure for the execution of such work in a large building.

The consequence is that walls so constructed are rarely secure from damp, being, in fact, of rubble work, with a front casing; and they are very inferior to walls of the more simple and sound construction, in which the strength and unity, or bond of the work, is not destroyed for the sake of obtaining a dressed surface on the walls. Nothing is more common than to find the cut stone portions of houses of the gentry in the country the least secure from damp, and the most difficult to protect.

The rubble masonry is therefore not only the most economical and simple in construction, but it makes the soundest and most durable work.

In support of this statement, it will be found, with few exceptions, that the ancient structures in this country—the round towers, castles, and monastic and ecclesiastical edifices—are all built with rubble walling, and are good illustrations of the soundness and durability of that mode of construction. The builders of these ancient structures were well skilled in masonry, and took much pains and great labour in erecting their buildings; and they were influenced to use rubble masonry by their knowledge of the nature of the Irish rocks, which are much better suited for rubble masonry than for any other description of work.

The stones of Ireland were quite new to Mr. Pennethorne (as will be shown from his own statements), the rocks being very different to those in England, except such as are found in the mountainous portions of the extreme north, and in Wales; and it can be proved where equally good materials and equal care, have been employed, in the erection of a building in which rubble masonry and coursed and dressed masonry have been both used, (the latter perhaps in a front of the house,) that the part least secure from penetrating driving rains, though not more exposed, is the coursed and dressed masonry, on which extra expense has been incurred. The reasons for this have been briefly given above, and are well known to practical builders in Ireland.

The stones used in building the workhouses, have generally been obtained as near the site as practicable, and sometimes on the site. The description of work (rubble masonry) admitted of the execution of the walls with any stones which were of a sound and durable quality, however hard they might be (and the hardest rocks, being the most durable, make the strongest walling); but frequently these could not have been employed for the cut stone work, which Mr. Pennethorne would have preferred for the walling, to execute which it would have been necessary to obtain more suitable stones from a great distance in many instances; and in all cases such kind of work must have been done at a very serious additional cost.

Mr. Pennethorne states that the walls are too thin; this is a mere assertion, which the strength and sound state of the works will very generally negative,—and no evidence is adduced by Mr. Pennethorne to show, that had the walls been thicker, they would have been more secure; but on the contrary, it can be shown by very numerous instances, that this would not have been the case.

The explanations given in reference to the cause of dampness, will demonstrate the impossibility of taking, in every instance, effectual precautions against dampness, which Mr. Pennethorne states should have been taken, but does not show in what manner this could have been done.

Pit-sand is said (by Mr. Pennethorne) to be inferior to river sand, and around London this is the fact, and a just objection exists to its use in that locality; but no one acquainted with the geology of Ireland will concur with Mr. Pennethorne, in his assertion that the use of pit-sand, in many localities, should have been avoided. Pit-sand has often been used where it has been found to be of better quality than the sand which many rivers supply. The sand from the sea-coast which has been long washed by the fresh water of a river, and has been long exposed, has in some instances been used; but surely such sand is not necessarily an improper material, it in fact is generally of a very superior quality when thus obtained, and when it is free from saline matter.

3. Execution of the Works of the Buildings.

Mr. Pennethorne's Reports on Complaints under Class No. I.

The quality of the stone, or the quarry from which it was to be taken, is never mentioned in the specification; but in the "Particulars relating to Building Contract," the competitor was required to name in his tender "the material he intends "to use in the walling and flagging;" such a Return was, I believe, seldom, (if ever) made, and consequently no particular stone was ever contracted for; an omission that opened the door to great difference of opinion, and led to much difficulty afterwards.

Architect's Explanation.

Mr. Pennethorne states that the omission to have the stone to be used named in the tender of the contractor "opened the door to great difference of opinion, and "much difficulty afterwards." Where can it be shown that this difference of opinion and difficulty have arisen?—In no one instance do I recollect such difficulty to have occurred. On the contrary, I conceive the clause to have been most successful. Mr. Pennethorne has been accustomed to London specifications, in which it is necessary to state whether Bath, Portland, Purbeck, York, Bolsover, Caen, or other stone is to be employed; with regard to facility of supply all these stones are equally available, as London builders generally obtain them all from one common source, the public wharf, or stone merchants' yard. The stones, however, differ much in cost and character, and are therefore required to be most particularly named in the specification. In Ireland, on the contrary, the walls of the workhouses are built with the rocks of the locality, which are generally of uniform character, although they occasionally differ something as to quality in different quarries. What benefit, therefore, would have been gained by requiring the stone to be named? Literally none; on the contrary, much is actually gained by the omission of the name of the stone, as the specification gives the architect more power than if it were named; the stone to be used being required to be of a quality approved by him, he has the power of objecting to any stone he disapproves.

Mr. Pennethorne exhibits this clause in reprehension of the course pursued, and consequently as one of the instances of mismanagement. That this reprehension is undeserved, and that its use in reference to this subject displays a short-sighted and narrow-minded view of the matter in its different bearings, which, if acted on, would have created much after difficulty and interruption to the works, the following explanation it is thought will clearly show.

The Poor Law Act does not give to the Commissioners, or contractors under them, the right conferred by some other Acts, to open quarries. The contractor has, therefore, to make his own terms for the supply of stone, by agreeing with the owners of quarries, or with the agents of the estate for the right of quarrying in any particular spot, by paying a stipulated sum for royalty, or otherwise.

In obtaining contracts for the workhouses, the contractor was left at liberty in making his tender to name the stone, and to agree for its use. It has, however, been generally deemed prudent on the contractor's part, not to make it a matter of agreement to use any particular stone; though the name of the stone proposed to be used has been submitted for approval, this course having been taken to satisfy themselves that its use would be allowed; and as by the provisions of the contract the Commissioners were enabled to exercise judgment as to the quality of the stone, it was necessarily a matter of indifference that the quarry whence the stone should be procured should be named in the contract. It may, however, be asked, why the contractor should have been called upon by the "Particulars," to name his material, although the quality of the stone or quarry was not inserted in the specification?

The reason is obvious, had the clause been omitted, the Commissioners or their architect could not with propriety, and without the appearance of exercising their powers arbitrarily, have objected to the use of any stone that the contractors might reasonably have calculated upon.

The quantity of stone employed in the erection of the Irish workhouses is about 1,500,000 tons, and the greater portion of this had to be purchased by the contractors, and in consequence of no particular quarry having been named in the contract, the contractors have generally been enabled to make fair terms with the proprietors, who, in most instances, it is well known, would have taken advantage of the contract requirements, and have demanded higher prices than the value of the stone, had a clause been introduced, compelling the contractor to use the stone of a particular quarry.

In illustration of the practical operation of this clause in the contract, the case of the Enniskillen workhouse may be cited, amongst others of a similar nature. The Board of Guardians of that Union having objected to the use of a certain kind of limestone, the Commissioners' architect attended their Board. The Guardians did not object to the stone on account of its want of strength, or durability, but because from its nature it gave a rougher appearance to the walling than could be obtained, if stone from a particular quarry were used. In order, therefore, to meet the Guardians' objection, the stone which had been used for the foundations, and which is an excellent material, was not permitted to be used for the walling above the surface; the prohibition being insisted on under the provisions of the clause in the contract already referred to. The contractor has in compliance with this requirement executed the building with the stone preferred by the Guardians; but it may be observed, that the proprietor of the quarry finding that the contractor was *compelled* to use that particular stone, raised the price of the material 2*d.* per ton above the amount he had previously been selling it for; and of this the Board of Guardians are aware.

With regard to the landings of stairs and the flagging, the same clause was equally effective; where any stone for such works has been deemed by Mr. Pennethorne to be objectionable, it is considered that a satisfactory explanation will be given in each case. The difference of opinion and difficulty which Mr. Pennethorne assumes to have arisen, would have been actual had such a stipulation as he proposes been introduced in the contract, but, in fact,

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the operation of the clause which was inserted after very careful consideration, has been the means of preventing any such difficulty, as that gratuitously assumed by Mr. Pennethorne to have arisen.

That the walls have, in very many cases, failed to keep out the wet, cannot be disputed; at Glenties, Donegal, and other places (as will be seen in the Reports on each) the water *now* runs on the floors in wet weather; in very many houses the ends of the girders and joists of the floors show the appearances of damp, and are beginning to rot; in the upper stories of these houses the damp is visible on the walls; and the beds on the ground-floors cannot, or ought not to be placed to touch the walls of the weather side of the house.

That the walls, where unfinished, as at Glenties and Donegal, and having no protection, by cement or otherwise in their exposed aspects, should exhibit dampness at first, and that the timbers should be stained thereby, is only what might, under such circumstances, be reasonably expected.

At Glenties and Donegal the dampness (now, it is believed satisfactorily remedied) originated from causes explained in the remarks made in reference to each of those buildings.

Where damp penetrates the walls of any building, and the protection necessary to their security is neglected, the timber will be likely to become rotten in a few years. I apprehend, however, that where such protection is found to be required for the walls of the workhouses, every arrangement which was practicable, has been made, for affording such protection. This, however will be best explained in dealing with the particular cases from which Mr. Pennethorne draws his conclusions.

Where the walls are damp, which many of them from being new must necessarily be for some time, it frequently arises from the non-absorbent nature of the materials used in their construction, which, as every one who has anything to do with building in Ireland, well knows, creates a condensation on the surface. Hence it is very proper to keep the beds from touching the walls, however dry these may be; and with this object a deal skirting has been constructed in several of the workhouses, the heads of the inmates being thereby protected from contact with the surface of the cold walls.

Remedies for this evil have been applied to most houses by covering the outside of the walls with "rough cast," or with a coat of Roman cement, or with slate, or by taking out the joints and pointing with cement or with mortar; and one or other of these remedies must be applied to all the other houses where the wet still penetrates.

The great majority of the 62 workhouses inspected by Mr. Pennethorne, have had no rough cast, Roman cement, or weather slating applied to them, nor is any such protection required to them in most cases. There are only three instances where rough cast has been used; these are, Castlederg, Kilkeel, and Glenties. At Glenties this was done in accordance with the contract (the house being rough cast throughout.) In only one instance (that of New Ross) has any weather slating been used, and there it is but a small quantity which has been applied. In seven instances only has there been even a partial application of Roman cement plastering, and in most of these it has been applied to a very small extent, on some of the more exposed high gables or flanks of the wing buildings, and in no case has it been used except on the exposed aspects. In eight instances only has any cement or other pointing to the joints been done at the expense of the Union. It therefore is shown that in only 18 Unions out of the 58 new buildings visited by Mr. Pennethorne, has any extra expense been incurred at the charge of the Unions, for protecting the exposed aspects of the walls; and in all these cases the cost, which was inconsiderable, was covered by the loans. The extent to which this work has been done is so small, that the aggregate of the cement work, slating, and pointing, would not exceed in quantity the superficial area of the entire of one of the large workhouses. From this it may be estimated to what a small extent it has been necessary to apply cement, weather slating, or cement pointing. The necessity for the use of even this quantity, and the causes of the dampness, are explained in another part of this Report.

Mr. Pennethorne states that these remedies have in many cases succeeded, but in others they have been ineffectual. It is believed that it can be shown that there is no instance in which, where such protection has been applied, that it has been unsuccessful, and Mr. Pennethorne has not named any one such instance.

When, therefore the great expense so generally incurred for protecting the buildings in this country, is taken into consideration, I think that Mr. Pennethorne's statements with reference to the workhouses, are without just grounds, especially in respect to the cost incurred for these works having been considerable. The complaint stated to have been made by the Guardians, on the ground that charges have been made on the Unions for these purposes, is an unreasonable one, and the statement that the dampness is attributable to the walls being hollow, or built with bad mortar, cannot, I am persuaded, be sustained.

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The majority of these houses have been built with limestone, and the defects of the walls have probably not arisen so much, or so frequently, from an inferior quality of stone, as from the manner in which the stones have been laid, and from the use of inferior mortar; and also as from the absence of mortar or grouting, producing "pockets," or hollow places within

Mr. Pennethorne here states that the majority of the workhouses are built with limestone; he remarks that the dampness arises *not so much* from the quality of the stones, as the manner they are laid, and from the use of inferior mortar, the absence of groutings, and from the stones being often laid "feather edged," by which the water runs into, instead of passing off the walls,—that the houses of which the walls are built of limestone, if laid in regular courses with close joints and good mortar,—and

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the walls. I do not believe that the walls were grouted in any case where the wet penetrates, although the specification specially requires "liquid "mortar grout to be used in such part "of the walls, and when, and where, "directed by the clerk of the works." In several houses where the wet most penetrated, as at Rathkeale, Carrick-on-Shannon, Colcraine, Balrothery, Glenties, Roscommon, Limerick, &c., I cut open the walls, and invariably found the mortar of a bad quality, and in some of them, after I became aware of it, as at Rathkeale, Carrick-on-Shannon, and Limerick, I found hollows, or pockets, in the centre of the walls. The stones also were often laid "feather edged," *i. e.*, with an inclination inwards and downwards, by which the water lodges and runs into the wall, instead of passing off. For these reasons I conclude that the defects of the walls have arisen more from bad mortar and bad workmanship, than from the quality of the stones. In houses where limestone has been used, if laid in regular courses, with close joints and good mortar, the walls have resisted the weather, and more especially so where the stones lie flat (like flag-stones) the full thickness of the walls; but where the walls admit the wet, I ascribe it to the following causes singly, or two or more jointly, as the case may be, viz. :—

The mortar made of good lime, but mixed with pit sand, and such as was perhaps of a loamy nature, or made of good sand, mixed with bad, or with little lime, or made of bad sand and lime together.

The *walls* built with very wide mortar joints; also with pockets or hollow places, and possibly with the stones laid feather-edged, and with small filling in stones.

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especially so where the stones lie flat, like flagstones, *the full thickness of the walls*, have resisted the weather.

Where the walls admit the wet, Mr. Pennethorne ascribes it to the causes above named,—to bad mortar,—or wide mortar joints,—to the existence of "pockets," or hollow places in the walls, and possibly to the stones being laid feather-edged, with small filling-in stones.

Mr. Pennethorne, in his difficulty to account for the dampness, has discovered no less than six separate causes calculated to produce it, and he finds no difficulty in attributing to one or other of these causes any damp which he discovered; but each and all of these six causes originated, as a matter of course (according to Mr. Pennethorne) in the want of attention to the proper execution of the work. This, however, may be answered by Mr. Pennethorne's admission in reference to those portions of the works which are the most likely to have been neglected, but which are in several instances admitted by him to have been executed satisfactorily; and unless great care had been bestowed on them, this result could not have been obtained. It seems to be most unaccountable that such care should have been given to parts of the buildings, and yet that the walling, which is necessarily the most prominent and exposed part of the works, should always in some one of the six particulars referred to, have been discovered by Mr. Pennethorne to be defective, and therefore damp.

If Mr. Pennethorne's opinions relative to the causes of dampness be correct, it may fairly be assumed that in the construction of the great majority of the public buildings in Ireland, there has been gross neglect, for there is not a county in which the most of such buildings are not protected, wholly or partially (on their more exposed aspects) by cement, weather slating, or plaster dashing. In some counties, with the exception of the workhouses, there is not a large public building erected, beyond the sheltered limits of a city, without such protection having been found necessary; and even in cities it has been frequently adopted. If, therefore, the public buildings erected under the Board of Works, the Board of Ordnance, by Grand Juries, and other public bodies, have so very commonly some external protection, (which is a matter easy of proof) it is not an unreasonable request to be allowed to attribute the dampness in any of the walls of the workhouses, and the necessity for protecting the walls, to the same causes; and as many of the public buildings referred to have been erected by gentlemen of experience, high honour, and undoubted integrity and skill, it will be less discreditable to be censured by Mr. Pennethorne, in common with such gentlemen.

An endeavour will here be made to account for the dampness in the walls, otherwise than through those causes which have occurred to Mr. Pennethorne; and it will, it is thought, be shown, that in his desire to produce a prejudicial report, he has overlooked considerations which may satisfactorily account for the dampness, without necessarily reverting to causes, which, being of an inculpatory nature, and such as to imply mismanagement, are the only ones which have occurred to him, or which at all events he has introduced into his Report on this part of his inquiry.

Of the 58 new workhouses visited, some (say 13) have been, as regards the stone-work, well built, and are above the average of these workhouses; most (say 36) may be called fairly substantial buildings (but not "staunch" or waterproof); the remainder (say 9) are below an average, and are not sound, and substantially built, nor staunch houses; but, excepting Castlederg and Dungarvan, there are not in any of these last named nine houses any settlements that are as yet of importance, nor are any serious defects likely to appear very speedily; when, however, the bad quality of the workmanship and materials, and the want of proper bond in the work, and of sufficient ties to the walls, is considered, it may be feared

The 58 new workhouses inspected by Mr. Pennethorne are constructed with the following kinds of rocks, respectively, viz. :—

15 of them of ordinary carboniferous limestone rock, fracturing with irregular angular stones.
10 of upper limestone or calp, a silicious, flat-bedded, and frequently impure, limestone rock.
1 of primary limestone, of a flat-bedded, slaty, texture.
6 of sandstone.
6 of sandstone and limestone.
8 of ordinary slate rock, chiefly of flat-bedded and fissile character.
4 of altered slate rocks, producing very hard, irregular, and angular shaped stones.
5 of basalt, of very hard, irregular, and angular stones.
3 of granite.
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that defects will appear, and that repairs will be required many years sooner than ought to be the case.

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The above-mentioned rocks are those which prevail in the respective districts in which the buildings are erected, and are commonly used for all ordinary building purposes; the limestones, sandstones, and granites, supply stone for squared or dressed work, as well as for common walling, and one or other of these rocks are generally employed in those districts in which slate rocks and basaltic rocks prevail.

The majority of these rocks produce stones of very different appearance and mineral character to those commonly met with in England, in which country some of them do not even occur, and which it is therefore presumed Mr. Pennethorne never saw before he came to Ireland. From this difference in the character of the various rocks, work of very different appearance is produced in using them. The buildings constructed from some of them, will in appearance be inferior to those built from others, although they may have had twice the amount of labour and expense bestowed on them. All these rocks are, however, suitable for the execution of rubble masonry, as described in the specification for the erection of the workhouses.

Had Mr. Pennethorne been familiar with the character of these different rocks he would not, I believe, have made the statements to which he has committed himself, and there is every reason to believe that in several instances in which he has condemned the execution of the stone work, it has resulted from his ignorance of the nature of the stone employed; from this cause he has deemed works to be of an inferior quality, which, had he been aware of the nature of the materials, he would have had reason to approve: this is evidenced by the favourable comments made by Mr. Pennethorne upon the stone work of certain workhouses, for which the contractors deserve much less credit, and have incurred much less expense, than several others, who have used the hard and more difficult working stone which prevails in the districts around the workhouses which they built.

In illustration of the above, I cite the five workhouses built with the hard and irregular fracturing basalt rock, which occurs in the north of Ireland; they are those at Belfast, Antrim, Magherafelt, Ballymoney and Coleraine, in which localities no other stone prevails. Mr. Pennethorne reports unfavourably of the stone work of all these workhouses; and certainly with the peculiar requirements necessary to satisfy him, walling with basalt rock is not calculated to obtain a favourable report. No rock, however, is more durable than basalt, which is universally employed in the localities before mentioned, and it makes very strong walling. As evidence that Mr. Pennethorne was not acquainted with the nature of basaltic rock, his remarks relative to Coleraine workhouse may be cited; this building is stated by Mr. Pennethorne to be of blue limestone, while, in fact, it is built with basalt rock; it is therefore easy to account for Mr. Pennethorne's unfavourable opinion of masonry executed with basaltic rocks.

Mr. Pennethorne, in his report on Coleraine workhouse, (one of the five above mentioned), states:—"I consider this house so inferior, that I have classed it as below an average; the "walls throughout were built with *blue limestone*."

Several other instances might be adduced to show Mr. Pennethorne's want of acquaintance with the character of the stones employed in the erection of the workhouse.

Had a flat bedded limestone rock prevailed at Balrothery and Coleraine, the walls of those workhouses could have been constructed at less expense to the respective contractors, and the works, from having an appearance different to that obtainable from the difficult and expensive working basalt, would have obtained a favourable report, and these houses would have been placed in a different class to that they now occupy, as they would no doubt have been put in the superior class, in which there are some for which less credit is due to the contractors. Of what value, then, is the classification given in Mr. Pennethorne's report?

Mr. Pennethorne states that the stones laid feather edge, have been one cause of dampness; what Mr. Pennethorne means by "feather edge," I conclude to be the angular and inverted inclination of the surface of the stone, as he so expresses himself. With irregular and angular shaped stones how is it possible that their surfaces can be at right angles with the external and vertical faces? they cannot be so, except in squared masonry, which it is presumed is the kind of work Mr. Pennethorne must have contemplated in his remarks; for it is next to impossible to have all the stones laid with their top surfaces either horizontal or inclining outwards; nor is this of any consequence, if the walls be properly constructed, and if the mortar joints be perfect; if these be not perfect, the wall cannot be secure in whatever way it may be constructed.

Mr. Pennethorne, as before noticed, states that where limestone has been used, if laid in regular courses with close joints and good mortar, they have resisted the weather, and more especially so, when they lie flat, like flag stones, *the full thickness of the walls*.

It will be shown from Mr. Pennethorne's own reports, that he contradicts his statements relative to the flat bedded stones. I will first observe, however, that although in some of the costly public buildings in England, and in the city of Dublin, there are portions of the walls built with stones the full thickness of the walls; and that although this construction may be seen in the granite walls of Kingstown Harbour, in the quay walls of the river Liffey, and in other works of that kind; there is no building in Ireland in which the ordinary walls are constructed with stones the full thickness of the walls, a mode of construction which would be peculiarly unsuited to the materials of this country, and one which would occasion an immense increase in the cost of the building, without any adequate advantage being derived; and the attempt to carry out such a specification would incur censure from every one whose practical knowledge would qualify him to give an opinion thereon, on account of the labour which would be necessary to select and reduce the stones to the thickness required.

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Mr. Pennethorne, when remarking on the "regular courses of masonry with close joints," must have been aware that the specification required "rubble" and not "coursed" masonry, the difference in the cost of which is very considerable; and wherever he has seen it in the workhouses, it has been done by the contractors beyond the contract requirements. This has been frequently the case with the masonry, particularly in the entrance fronts of the buildings, most of which are executed beyond the contract specification. Mr. Pennethorne appears to be astray respecting what constitutes rubble masonry, for in his report on the Belfast House, he says:—"The stone work throughout should. I think, have been done like the front of the "Board-room, where the joints *are* much more square and close."

The rubble walls which he condemns, and which in page 83 he states are built on principles of "false economy," will bear no unfavourable comparison with reference to the kind of masonry preferred by Mr. Pennethorne. I will not, however, do him the injustice even to suppose that he meant the irregular fracturing rocks of the carboniferous limestone, granite, slates, and basalt should have been worked into flat bedded and squared courses, because the only rocks capable, without vast expense, of making the description of work which Mr. Pennethorne asserts to be favourable for keeping out damp, are the flat bedded limestone, which prevail in certain limited areas in Ireland.

It is a peculiar fact, that among the workhouses, those, in the erection of which, limestone has been used, and in which flat bedded rocks have been employed, are the most censured by him for being damp in the walls, in proof of which, see Reports on Donegal, Carrick-on-Shannon, Dunshaughlin, and Tralee. In these houses there is some very close-jointed work, approaching nearer to the kind preferred by Mr. Pennethorne than is to be found in any other workhouses; and yet, it is where this kind of work has been used, that the greatest dampness has been found on the walls.

I will now refer to four large public buildings (not workhouses), erected with much care, and at great expense, in districts where the best description of stone suitable for the construction, approved by Mr. Pennethorne, prevails. I take two from each place referred to, namely, Castlebar and Mullingar, (see the Appendix, papers A, No. I, 2, 3, and 4); these are the gaol and large barracks at Castlebar, and the gaol and large Roman Catholic chapel at Mullingar. The particulars relative to these buildings were obtained from a respectable source some time prior to Mr. Pennethorne's visit to Ireland, having procured them amongst other general information of the kind, which for the last five years I have been collecting, for the purpose of obtaining positive data with regard to the various properties of the building materials in Ireland. These four buildings are fair representations of the average construction of the public buildings in Ireland erected without a covering of cement or plaster dashing; and I may, I believe, allude to them without creating any prejudice against the parties concerned in their erection.

At each of the towns of Castlebar and Mullingar there is a large workhouse, built in the way Mr. Pennethorne condemns, and in the protection of which no expenditure has been incurred. If the walling of these two workhouses be examined, and compared with the buildings referred to, the value of Mr. Pennethorne's statements would be practically determined, as the work will show the facts to be quite the reverse of what Mr. Pennethorne has supposed.

I will now turn to the consideration of the dampness of the walls, as attributable to penetrating, driving rains.

Every one familiar with Ireland is aware of the great humidity of its climate, and that a much greater quantity of rain falls in that country than in England; and also that the rain is frequently accompanied by high gales or strong winds, particularly from the south-west, from which quarter the wind blows more than from any other.

Every one having the least practical knowledge of building, must also be aware that walls erected in wet weather, and long exposed to it, become so wet as to require a considerable time to dry—for which sometimes several seasons are necessary, even after the weather has become favourable. It is also known that any timbers inserted in such walls necessarily become damp, and are liable to become rotten in a few years, unless the walls become dry naturally or by the application of some protection to them externally.

The mortar in walls constructed in wet weather, and long exposed to it, is thereby prevented from becoming "set," and hard, as it would do if executed in favourable weather, and under ordinary circumstances. To undergo this change, a much longer time would, therefore, be required; and the consequence is, that the setting property of the mortar being weakened, it does not resist the penetrating rains which accompany severe winds. The mortar, from not having become hard, is also, in its external joints, not secure against severe frosts, even for one or two seasons afterwards, and particularly so if it has been much saturated by previous wet weather.

Against such accidental results it is not always possible to provide; and even if the attempt were made, it might prove to be rather prejudicial than otherwise; for the limes of the country are so variable, that the weather which would much injure by weakening the setting property of the mortar of one place, may greatly improve it in another, and more particularly so where lime is of the quality scientifically known as "hydraulic lime." In such cases the very wetness of the walls would eventually strengthen and consolidate them.

In no instance does Mr. Pennethorne account for the dampness of the walls from these natural causes; but where houses are unfinished, and their walls necessarily in a green state, and in others where the external mortar joints have been injured by frost, and even where arrangements have been made for re-pointing them, Mr. Pennethorne, on finding the walls

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damp (and it is reasonable to expect they would be so), ascribes it to the bad execution of the work, and to the inferiority of the mortar. The lime used being of a different quality to the white lime brought to London, be at once pronounces the Irish mortar to be bad, overlooking the fact that colour and other peculiarities arise from the nature of the local stone; and so great is this difference, that some lime will make richer looking mortar mixed with one part lime to three of sand, than it will if three parts of lime be used to one of sand: the greatest difference existing between the meagre lime of the primary limestone rocks, and the fat rich limes of the carboniferous and some of the upper limestones.

To prove that the climate of Ireland is much more wet than that of England, and to illustrate the prevalence of the south-west winds, I subjoin some information derived from the valuable and interesting tables communicated to the Royal Irish Academy by the Rev. Thomas Knox, of Toomavara, county Tipperary, the results shown having been carefully registered by himself and by the Rev. Henry B. Knox, of Monks Eleigh, in Suffolk, in order to contrast the humidity of the climates of England and Ireland respectively. With this view these tables have been published by the Royal Irish Academy, as showing valuable statistical facts. I am personally indebted to the Rev. Thomas Knox for some accurate information as to the quantity of rain which has fallen of late years, and which well supports the tables given in my remarks relative to the supply of water in the workhouse buildings.

COMPARATIVE VIEW of the Results of Rain-Gauges observed at Toomavara, County Tipperary, by the Rev. Thomas Knox, and at Monks Eleigh, in Suffolk, by the Rev. Henry B. Knox.

Wind.	S.	S.W.	W.	N.W.	N.	N.E.	E.	S.E.	Total.
Toomavara . .	4·249	12·696	8·150	2·640	3·115	3·078	3·101	3·523	40·552
Monks Eleigh .	2·674	2·756	4·371	2·392	2·776	2·027	3·092	1·708	21·796

An abstract has been prepared in the same manner as the above since 1839, but the proportion would doubtless differ but very little. The year 1839 was the first year of operations in building workhouses in Ireland. It will be observed from the above, that the direction of the wind influences the fall of rain much less in England than in Ireland; in the latter country it will be seen that the quantity which falls when the wind is in the south-west very considerably exceeds that from any other quarter. In accordance with the results which might naturally be expected, the aspects of the buildings exposed to the south-west are those which exhibit the damp, and in five cases certainly out of six are the portions of the building which alone exhibit any dampness, excepting of course such houses as are exposed to particular currents from their peculiar position with reference to neighbouring elevated mountain masses.

Under the circumstances above mentioned, it is not unreasonable to expect that dampness should sometimes occur in new buildings, and that the necessity for some external application should exist where the mortar has become weakened by saturation, or that it should require some protection in order that it may become "set" or solid. And it has been shown that work of this kind has been required to a comparatively limited extent, and on the exposed aspects only of some of the workhouses; but where required, a plastering of Roman cement of about three-quarters of an inch thick has been applied in the same way that is ordinarily adopted for buildings in a city (where protection from damp, or a more pleasing and smoother surface is desired); and in some instances a coating of plaster, mixed with coarse sand, or fine pebbles, called pebble dashing, has been put on the walls; and in some others the injured mortar joints have been raked out and re-pointed. These remedies, wherever they have been completed, have been found successful in remedying the dampness complained of. Some few houses remain as yet unprotected, which require similar treatment, and among the number which are deemed most to require it is the workhouse of Loughrea Union.

Mr. Pennethorne, however, censures the application of any such protection, and attributes its necessity to the imperfect execution of the walling, and appears satisfied in having, somewhat suddenly, discovered the cause to be "hollows or pockets" in their centres. He states—

"That in several of the houses where the wet most penetrated, as at Rathkeale, Carrick-on-Shannon, "Coleraine, Balrothery, Glenties, Roscommon, Limerick, &c. I cut open the walls, and universally "found the mortar of a bad quality, and in some of them, *after I became aware of it*, as Rathkeale, "Carrick-on-Shannon, and Limerick, I found hollows or pockets in the centre of the walls."

If Mr. Pennethorne had not been made aware of the "hollows or pockets" in the walls, it may fairly be assumed that the mortar would in every case have been the cause assigned for the damp. Having, however, as before remarked, been made aware of these circumstances, he has been thus enabled to assign no less than six separate causes, to one or other of which he could always refer the damp. In no one instance, therefore, has he attributed it to the natural causes which, throughout Ireland, have occasioned all classes of buildings, both public and domestic, to be protected by some external application to their walls. To so great an extent does this apply, that in some towns it will be found that there is not one building in twenty without either weather slating or plaster.

It may be remarked, that in the above quotation Mr. Pennethorne states in his Report on the Limerick workhouse, that "he saw no damp to any extent," and that his attention was called to the hollows by a Mr. Creagh, who discovered them while superintending the execution of

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some pointing, which the Commissioners caused to be done. He instances the Balrothery house among others, where he says, "I cut open the walls." In another part he says, that he never visited that building, which was inspected by his assistant, who, however, does not even state that the walls admit any damp.

In page 83, Mr. Pennethorne, in concluding his remarks on the general execution of the buildings states, as before remarked,—

> "That the most false economy was in having the walls built with rubble work, too thin for such a "mode of building, *and without* any precautions taken to keep out the damp, whereby great expense "afterwards was incurred for cementing, dashing, or pointing the houses on their weather sides."

It has already been shown that the expense which has been incurred for protecting the walls, has been very inconsiderable. What additional precautions could have been taken in such case, it is difficult to learn, nor does Mr. Pennethorne solve the difficulty.

In the remarks which have been made relative to the mortar, and the unfavourable state of the weather in which the walls may have been constructed, it is assumed that the dampness which has appeared in some instances, may be attributed to this cause; and against the uncertainty of weather how is it possible always to calculate? Perhaps it may be considered that the contract should have embraced the work of cementing the exposed aspects of the walls; if so, for which houses, and in what localities should such provision have been made? should it have been provided for all? This, it is clear, would have been unnecessary, for the walls of the great majority of the houses, notwithstanding Mr. Pennethorne's statements, have never been complained of in this respect.

Should all the buildings in the exposed west of Ireland have been so provided for? If so, a needless expense would have been incurred, for there are workhouses in that part of the country which are quite free from damp, and without any external protection!

In fact, in no quarter does such necessity exist generally; although considering the uncertainty attending the erection of the buildings, and peculiarly so from their exposure to unfavourable weather in their earlier stages, it would have been necessary to have covered the whole of the buildings to have ensured perfect security; and to have accomplished this, in comparison to the quantity done, and which is not more than would have been required for one large house. a great amount of expenditure would have been incurred, which is now proved to be unnecessary.

One of the instances in which the greatest amount of cost has been incurred for protecting the walls, is that of Dungarvan, where the walls have been cemented on their more exposed aspects; would Mr. Pennethorne have included this in the contract, by describing certain portions of the walls to be cemented? If so, the plaster would have been wrongly applied, when in compliance with the wish of the guardians, the site was changed after the contract had been made, and the position and degree of exposure of the building were altogether altered. In the original position, cement might not have been found necessary.

Against dampness arising from uncertain and uncontrollable causes, it appears to me no precautionary measures could advantageously have been taken beyond those adopted, and it is certain that walls constructed with the intention of making them, if possible, secure from damp without external protection, are always much better built than those which it is known will be so protected. Any expense which after the completion of the walls may be found necessary for the execution of this work, would be much better left to be done, when so proved, than to have had a provision in the contract, which would, of course, have been proportionally increased thereby. In every point of view, it is therefore submitted, that the course pursued was the most economical and sound in practice.

Mr. Pennethorne visited the buildings in the depth of winter, and in severe weather, and he then found, as he states, some of them damp; if, however, after the lapse of a year, another inspection were made, the dampness which Mr. Pennethorne has ascribed to bad mortar, hollow pockets, honeycombs, and other terms used by him, it would be found, without doubt, in many instances, that the damp had altogether disappeared, as the fresh mortar became gradually dry.

One fact may be adduced in reference to this subject, which in itself is entitled to more weight than all the general and unsupported assertions and ill-matured opinions which have been uttered thereon; this is the instance supplied by the Cashel Union workhouse, which was inspected by Mr. Pennethorne. It must be presumed, that the walls are dry, as the master has informed me that they are so, and there is no complaint now made in reference to them; they were, however, at one time so wet, that it was thought. that in order to get them dry, it would be necessary to protect them with cement, and a sum of 150*l.* was actually borrowed for this purpose; yet before the season arrived when the work could be performed, the walls had so gradually and sensibly improved, that the outlay seemed to be unnecessary, and it is now proved, that by the operation of natural causes, such an application of cement is not required.

Had this workhouse been a year later in its erection, and built in the same kind of weather as it was, it would doubtless have been represented by Mr. Pennethorne as a building much below the average, instead of being placed, as it actually is, sixth on the list of the average buildings; and no doubt it would have been stated to have been built with inferior mortar, or the damp would have been ascribed to one of the six causes before noticed. From hence, it follows, that some walls exhibit damp arising from causes wholly different to those assigned for it by Mr. Pennethorne.

In further illustration of this subject, I submit the instance of the Dunmanway workhouse, on one of the flank walls of a wing of which, considerable damp appeared soon after the

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completion of the building; in truth, the wet drove through the walls. The masonry was constructed with flat bedded stones; the building, during its progress, was frequently inspected by very intelligent Guardians experienced in building operations, and the clerk of works was appointed on their recommendation; the wall in question may consequently be presumed to have been well built, and I have heard the Guardians express their opinion that it was so, and that on more than one occasion. The Guardians do not in fact complain of the walling, nor did they attribute the damp to the imperfect execution of the work, as has been done in other instances. This case therefore is an additional proof that there are causes to which any dampness that may appear in the buildings, may be attributed other than those assigned by Mr. Pennethorne. I may add, while on this topic, that only a few days since, the respected chairman of the Dunmanway Union informed me personally, that the wall above referred to was becoming dry, and the necessity for any protection, he considered would shortly be altogether removed.

Numerous other instances might be mentioned where the wet at one time penetrated the walls, stained the timbers, and made the interior of the walls and even the floors damp, but where there is now no appearance of dampness. The appearance of damp so recently after the erection of a house, is no certain criterion of the good or bad execution of the walling.

I now proceed to some remarks upon the absorbent, and non-absorbent quality of the building materials of Ireland, as these are not unimportant matters in reference to the consideration of the causes of dampness.

One great difference between the building materials of England and Ireland, is the very much greater extent of non-absorbent materials in the latter, from which circumstance, the dampness in the walls is certainly increased, and the driving rains are enabled to penetrate the walls, because the mortar is much longer before it becomes hard, in consequence of the moisture not being absorbed by the stone to which it is attached. The mortar, from this cause, also dries more unequally, and the walls are thereby much affected by the state of the weather, at and near the period of their erection.

With regard to the quality and character of the building materials in this country, it may not perhaps be deemed presumptuous in me to submit, that after five years close study of the subject, and in the prosecution of which I have incurred much personal labour and expense, I have obtained an acquaintance with this subject, which in the nature of things, could not be possessed by one who is a stranger to the country.

The following Table published in the proceedings of the Geological Society of Dublin, is a portion of some information supplied by me to that Society, which they have been pleased to acknowledge; and it may perhaps be excusable for me to quote the statement of the president at the last annual meeting of the Society, viz.: "that I had presented to their museum several "hundred specimens of great value, and had undertaken a series of experiments, quite un- "equalled in number or value, on the relative qualities of the building stones of Ireland."

TABLE of EXPERIMENTS made by the Architect of the Poor Law Commissioners on the average weight and absorption of the principal Building Stones of Ireland.

—	Weight.	Absorption after 88 hours' immersion, the stone being first in a dry state.
	lbs.	
Ordinary carboniferous limestone	170	½ lb.
Shaly calp limestone	160	1 to 4 lbs.
Sandstone	145	¼ to 10 lbs., average, 5½ lbs.
Granite	170	¼ to 2 lbs.
Basalt	178	less than ½ lb.
Clay slate (roofing quality)	177	Ditto.
Ordinary clay slate rock from Bantry . .	. .	2 lbs.

The above statement shows the degree of absorbent power of the different rocks, and that most of them are of a non-absorbent quality. The moisture of the atmosphere, increased to a considerable extent by the elevated temperature of an occupied apartment, occasions in a new building a considerable condensation on its walls, which however gradually diminishes and finally disappears.

Dampness from this cause alone has appeared to Mr. Pennethorne in some workhouses on which he has reported specially, and has been used by him as an argument against the sound construction of the walls.

With the view of adding to the comfort of the inmates, and chiefly to prevent dampness on the walls, half brick lining to the interior of the walls was approved by the Commissioners for those houses in which it has been executed, but without any expectation that such lining would be the means of perfectly resisting the penetrating rains in any exposed aspect, (as supposed by Mr. Pennethorne,) for which purpose it is unsuited, and no practical architect would recommend its adoption in such an expectation.

Mr. Pennethorne gives, in Table No. 8, p. 91, a classification of 58 new workhouses, in which he exhibits his estimation of their relative goodness of construction, more particularly in reference to the stone work. He states that 36 of the houses are of an average degree of merit, that nine are above an average, and that 13 are below the average.

Mr. Pennethorne does not state what standard he adopted in determining the average degree of merit in the execution. It is, however, presumed that the list shows Mr. Pennethorne's opinion of the execution of the houses in comparison only with each other. He states, however, in page 83, that the 36 buildings of the average class, "as compared with the build-"ings of the country, may be called fairly substantial."

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Forty-one only out of the 58 buildings mentioned are reported specially by Mr. Pennethorne. Those houses not reported on may, from the causes assigned for their omission, be fairly considered to supply less objectionable matter than those on which reports have been made.

It is not intended to offer any remarks here on the execution of the several houses, but to present a few extracts from Mr. Pennethorne's own Report, to show, as regards the execution of the walling, on which he founds his opinion of the three classes, the inconsistency, or at least the insufficiency, of his Reports, in which he displays as negatively bad, some buildings which ought, from his own Reports on them, to be represented in the list as being well executed.

The mode in which Mr. Pennethorne has arrived at the order of classification may be fairly conjectured from what has already been so fully stated with regard to the stone work, and the dampness of the walls, accidental circumstances having frequently been made the criterion of merit.

The following passages are extracted from Mr. Pennethorne's special Reports on buildings, which he has placed in the average class, and which he describes as not stanch or waterproof.

Page 46.—TRIM.

"This is one of the houses I did not see; but it was visited by Mr. Barron on my behalf, and he "reports it to be altogether a well-built house, and such as may stand high in the class of average "buildings."

Page 47.—OMAGH.

"In regard to the execution of the works of this building, I have classed it as an average, the walls "being substantially built; and the timbers and workmanship of the same, good. This house was built "by Mr. James Creden, at a very low contract. The house at Lisnaskea, which he also built, at a "fair remunerating price, I have classed as above an average."

Page 51.—CARRICK-ON-SUIR.

"I have classed this as an average building, the substantial parts of it being well executed."

Page 53.—NENAGH.

"In regard to the execution of the works of this building, I have, upon the report of Mr. Barron, "called this house an average, and it stands high in that class, notwithstanding that the wet penetrates "the walls upon the exposed situations."

Page 54.—SCARIFF.

"The Guardians (Mr. Pennethorne states) consider the site unobjectionable, the execution of the works "of the buildings excellent, and they make no complaint as to the sufficiency of the water, or the arrange-"ments of the drainage."

Page 60.—KILRUSH.

"The Guardians pointed out some defects in the walls and other parts of the building, but altogether "it is a sound and substantial house; and stands high in the class of average buildings."

Page 67.—NEW ROSS.

"This is one of the houses I did not visit, but from the report of Mr. Barron, I have classed it as an "average."

Page 72.—CLONES.

"In regard to the execution of the building, I have classed this house as an average; but it is superior "to very many in that class, the lead flashings of roofs are to a certain extent defective, and admit damp "into the walls."

Page 72.—ANTRIM.

"In regard to the execution of the works of the building, I have classed this house as an average, not-"withstanding that the wet penetrates a good deal through the walls, and behind the stone gables."

What better results can be desired than those here reported by Mr. Pennethorne, in the above selection from the list of average houses? From what has already been said with regard to Mr. Pennethorne's opinion in reference to stone-work, and the dampness of the walls, it is not difficult to determine what, in his estimation, constitutes merit as regards workmanship, and the value which should be attached to his tabulated statement may be hereby fairly estimated.

With regard to the second and third complaints, "That the wet penetrates, and has pene-"trated the roof against the chimney shafts, and where low buildings adjoin to higher, and "that the wet penetrates, or has penetrated the *roof at the* ventilators."

Mr. Pennethorne's remarks support the good execution of the roofs. The dampness he ascribes to the absence of the lead flashings. I am of opinion it can be shown that, with little exception, he is under error in ascribing (as he has so generally done) dampness to the imperfect execution of the lead flashings. Mr. Pennethorne says only what is correct in remarking on the difficulty and expense of getting plumbers' work executed in Ireland, and the common omission of it.

Page 76.

At Coote Hill the lead flashings in particular portions of the roofs were partially omitted, but only in places where it was thought they could be dispensed with by following another mode of execution; and the work was performed under the Commissioners' own officer, there being no contractor, and owing to the numerous and peculiar difficulties and expenses attending the erection of this building, it was thought to be an expenditure that could with advantage to the interests of the Union be dispensed with. I think it is not unreasonable to assume that Mr Pennethorne may have been misinformed in this respect, since he has been so much so with regard to the iron columns in both school-rooms (mentioned in page 8), which Mr. Penne-

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thorne asserts have been omitted, although they were there at the time he visited the house, and have been so ever since its erection.

In the contracts for the houses first built, and in accordance with a very general custom, no lead work was included, but in all the later contracts it was introduced. The omission arose solely from a desire to economise the outlay; it was a work that could at any time be added, and it was then considered unnecessary.

Page 5.

On the fourth complaint, "That the wet penetrates, or has penetrated, through all the win- " dows, and that the windows have not been revealed."

Mr. Pennethorne states, that it is a just ground of complaint that they are not revealed. It is necessary to explain what revealing means. In London, in Dublin, and in most cities, the term is well understood among persons familiar with building operations. It consists of the projection before the frame of the windows of some brickwork or cut stone work; the opening in front of the windows being narrower than the opening behind it, in the interior of the room. The projecting portion in cities, and where brick is used, is generally about 4½ inches. This projection therefore assists to secure the sash-frame, which is wedged up against it, and when the frame is well pointed and bedded in mortar, assists very much in keeping out driving rains.

This construction is very rarely omitted in London. In the English workhouses and other buildings of the country, where solid deal frames like those of the poor-houses are used, it is rarely employed, In the Irish workhouses this construction has not been employed:—1st. Because the frames can be securely bedded without it, as the frames of the windows generally have been; 2nd. because unless done with brick, (which has been purposely much avoided,) it would have been an expensive construction from the great number of windows in a workhouse; and it would have been an injudicious outlay in most Unions. In those houses where any wet may penetrate between the frame and the walls, the pointing mortar requires renewing, and if so done, there is very little doubt but these windows, with this slight outlay, would be quite secure in this respect; where they are not so, it is the exception.

There are three causes producing the dampness connected with the windows, viz. :—1st. The condensation of the atmosphere within the room. Mr. Pennethorne admits this has been found to be the case, for he recommends slips to catch condensed water, and throw it externally, for it otherwise must run on to the floors; dampness from this cause occurs with the best construction, and is frequently very considerable in a new building.

2nd. It arises from the penetration of driving rains through the joints of the opening lights, which it is impossible to make secure, (and particularly with iron lights,) against very severe driving rains. Almost every gentleman in Ireland must, I am persuaded, know this difficulty, however good his windows, for the best construction is rarely secure against it at all times. It is to be remarked that Mr. Pennethorne's visit was during the prevalence of the equinoctial gales and wet weather.

The third cause is one which, to my knowledge, exists in regard to the windows of many workhouses which have been occupied for two or three years, viz., the entire neglect of them, a coating of paint being very necessary for new work, and the putty also requiring some attention, especially when put together in damp seasons; in which case it ought to receive attention within a reasonable period. Although this occasionally becomes necessary through lapse of time, it does not imply original defects in the work, for the attention to the windows was as great in the earlier built houses as the later ones, and in the latter, Mr. Pennethorne says, the windows have been well constructed. The difference remarked, however, has no other origin than the neglect of the windows in the houses earlier built. All the workhouses require, and should have, a periodical survey, for the purpose of enabling the Guardians to do what may be required. In many Unions this has been done, the Guardians having attended to it, and having also frequently obtained surveys for such a purpose. In some Unions, on the other hand, there is an indifference on this point, the Guardians leaving to the Commissioners the initiative, and being careless themselves of the preservation of the workhouse.

The defects in the ventilators of the roofs may generally be attributed to the same cause; they are, moreover, often occasioned by the neglect of the louvres, the pivots of which are allowed to get rusty and displaced.

I have taken all the precautions in my power to avoid neglect on the part of the workhouse officers, and with this view the instructions (Letter B, in Appendix,) were prepared for the guidance of the workhouse masters; their inattention was however so great, and the appearance of the houses was so much injured thereby, that I found myself obliged, in the spring of last year, to complain to the Commissioners that the instructions referred to were not attended to, and measures were taken for correcting this negligence.

Page 6.

As to the fifth complaint, "That mortar floors have failed, and have required, or do require, to be replaced."

The floors of the workhouses were originally intended to have been made of stone, but it was subsequently considered, for reasons which have been fully stated in the Poor Law Commissioners' Annual Reports, that earthen floors were preferable. On their construction no architect would stake his reputation, for with the greatest care, and with unusual expense, the result may be unsatisfactory. In some places simple means, such as the mere deposit of the natural unmixed clayey earth, may produce excellent floors, while at other places merely gravel, commonly called corn gravel, is met with, and which makes good floors. The expense of earthen floors is inconsiderable, and the renewal of them at any time, a matter of little difficulty, and easily accomplished by the paupers; in fact, many really good floors have been made by paupers under the master's direction.

In some of the workhouses the earthen floors are excellent, and have, I believe, required no repair; and they are still in perfect order in several of the largest occupied buildings.

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As to the sixth complaint, "That the yards were not levelled, and that the ground within "and without was left very rough."

Mr. Pennethorne is in error in supposing that the contractors were required to do more than surface and level the yards for drainage. This was done by them, but it was never intended that any sloping ground should be excavated to one uniform level, but that the uneven surface should be levelled so far as might be necessary for effecting a drainage of the surface water, the inclined sites having much advantage in this respect. The statement of the levels as given by Mr. Pennethorne, viz., that 20 are level, 18 are on inclined planes, and that 20 are on very steep banks, is not to be depended upon; being generally very erroneous and contradictory of the statements made by Mr. Pennethorne in other parts of his Report.

It was also required that the levelling of the uneven ground should be continued to a distance of 10 feet beyond the outer works, and that any superfluous earth should be removed beyond that distance, or as otherwise directed. Had the contractors been required to do more it would have added unnecessarily to the expense, inasmuch as the paupers could have been so advantageously employed in the performance of the work, as also in stoning and gravelling the surface, and in making the roads, all such work has in many Unions been well done and has given useful employment to the paupers.

Mr. Pennethorne's remarks suggest the idea that the yards were left in a neglected and improper state, which was certainly not the case; and, I believe, any just cause of complaint on this head will be very rarely met with.

It would undoubtedly have added to the appearance of the buildings, if the yards had been paved or gravelled, the roads made, the garden laid out, and the paths completed, which work Mr. Pennethorne infers was expected to have been done. The performance of such work would however (I have reason to believe) have been censured, and justly so, inasmuch as to have incurred expense for such labour would have been very unnecessary. Many Unions could be cited in which such work has been most satisfactorily performed by means of pauper labour alone, and this, with good management on the part of the Guardians and the master, should have been done in all.

The practice of allowing sand to be excavated, and stone to be quarried, on the sites, has. in every instance mentioned by Mr. Pennethorne, been of great advantage to the Union, as thereby receptacles for tanks were formed free of expense to the Unions, but which would otherwise have been paid for, as was the case in those Unions where no excavations were made. The quarrying, &c., were calculated on by the contractor in making his tender, and in this respect much advantage accrued to the Unions in diminishing the amount of the contract sum.

The remarks made by Mr. Pennethorne, with reference to river sand being in the neighbourhood of the Killarney site, supply information which I did not possess before, and I believe I am correct in stating that no useful quantity could have been had, excepting from a considerable distance, and then only by obtaining permission to remove it. The sand obtained on the site was of a good quality and fit for building.

Mr. Pennethorne states, in page 3, that the practice of allowing stone to be raised on the Page 3.
site was, in every instance, so far as he could ascertain, permitted after the contract had been made. Mr. Pennethorne in saying this must have forgotten the passage in the specification cited by him in his Report on the Limerick Union. The following is a copy of it from page 36:—

> "The specification says the stones may be quarried on the site on the part intervening between the "road or front boundary, and the entrance front of the house, which is to be placed at a distance of "150 feet back, and the quarry filled up in a manner to form an inclined plane from the road to the "entrance front."

The other instance in which the stone required for the use of the building was raised on the site is that of Cork, where a large quarry, the best in the neighbourhood, had been long worked, and the advantage of having which was calculated upon by all the parties who tendered for the erection of the building.

Mr. Pennethorne insinuates that the roofs of the buildings are spreading, and he says, Page 7.
"from the appearance of some of the internal angles of the upper dormitories, and from "various settlements over doors and windows, I have little doubt such is the fact;" he states, however, in the same sentence, that he did not "*see it (the spreading) with certainty*," but had any such tendency existed, it is but reasonable to suppose that he would have been able to cite one instance of it out of the 58 new buildings which were visited by him. This he has not been able to do. In his Report on the Castlederg workhouse, he has made the nearest approach to a direct statement of the kind.

To that workhouse his observations regarding the "inner angles" and "slight settlements "over doors and windows" might apply; but the building of that house is peculiar, and differs from that of the other workhouses which he visited; and the observations, by which he detected roof-spreading, although applied by him to the workhouses generally, are not applicable to the construction of any other workhouse than that of Castlederg. This shows the way in which Mr. Pennethorne is apt to derive general conclusions, on most important points, from solitary cases. I do not, however, admit, in saying this, that there is any roof-spreading at Castlederg. On the contrary, I assert there is none.

Mr. Pennethorne states that the scantlings of the roofs and floors are less than he would

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have put them; he, however, does not state that the scantlings are too slight. He adds that, though the joints are slight, " the floors stand well, and with very little vibration "

As the best size and proportion for scantlings are matters well understood by professional men, Mr. Pennethorne could have readily given a distinct opinion on the above point; and, also, whether the timber has been cut into that shape which causes the least waste of material, and gives it the greatest strength, which I contend it has.

As no remarks are made in Mr. Pennethorne's Report in respect of these very important points, it may fairly be inferred that their execution is satisfactory. If otherwise, some decided statements would have been given, in place of the indirect and vague words from which inferences are left to be drawn of an unfavourable nature.

Mr. Pennethorne has not stated any one instance in which the scantlings of the timbers, as executed in the buildings, are below the specified size; and it may be added, that it is an extraordinary and unparalleled fact, that no such complaint has been made in any one case, out of 130 workhouses, although it is a most common one with regard to building contracts generally; and I think this one fact furnishes very clear testimony of the great care taken to insure the due and faithful completion of the requirements of the contracts: and being of itself a fact easily to be ascertained, and not a matter of mere opinion (like the execution of the walling) on which different persons may have different ideas, *I repeat, that it is an unparalleled circumstance in building contracts, (even in those of moderate extent,) that in the use and conversion of* 40,000 *tons of timber, cut into almost innumerable scantlings for joists, rafters, &c., &c., that there should not exist one complaint, that the requirement as to the size defined for them in the contract, has been evaded!*

I now proceed to notice the mode of executing the timber work, and its quality.

Mr. Pennethorne says the ends of girders are not protected, and that the wall has not, as specified, in many instances been built hollow around them, and that these ends must soon decay. This would be the case, I admit, in two or three years wherever the walls into which they are inserted are damp, and remain so for want of the protection necessary for remedying the dampness, as has been already shown.

Page 7. I believe that Mr. Pennethorne errs in supposing that the spaces around the ends of the girders or beams have not been left hollow; and had he named any one building, it could, most likely, have been shown that, in accordance with a practice commonly adopted by clerks of works and contractors, and which it was difficult to prevent, that the opening has been pointed in front, in order to give the open space a more finished appearance, and that the required space, though not open to observation, was actually left in the walling.

With the view of avoiding dampness occurring to the timbers, a mode of constructing the floors was adopted, which, while it was the most economical, caused the least extent possible of bearing timber to be inserted into the walls; and I assert, without fear of contradiction, that it cannot be shown that in any other public buildings in the country so little of the timber which supports the floors comes into contact with the external walls. And while on this subject, I beg to remark, that the construction adopted for supporting the masonry over the openings of windows and doors, is similar to that almost universally found in the ancient castellated and monastic buildings in this country. By this mode (the strength of which the structures referred to amply proves), the use of timber for beams or lentils over windows and doors is avoided, the employment of which constitutes an inferiority in the construction of modern buildings, and is their chief cause of decay. In the workhouses (as in the ancient structures) the masonry over the openings in question is supported on arches or by solid stones, in all the external walls, almost without exception. By this course economy of outlay has been secured, and the buildings are rendered, at the same time, very much stronger and more durable.

Mr. Pennethorne states that the gangways have been constructed with timber of various lengths and widths, and that the drawing shows the width about 10 inches, and that some of the gangways are constructed with plank of less and some of greater width. The reason why they have been so constructed is obvious, namely, the difficulty of getting, in every locality, timber sufficiently seasoned, or otherwise unobjectionable, of the exact width shown on the small drawings. The builders in Ireland have not, in many districts, timber yards to which they can resort (as the London builders do), and procure ready cut and dried timber of any dimensions required.

It was necessary that the small drawings should show some joints in exhibiting the constructive arrangement, but it is not right to assume that the width of the planks, as shown by such joints, was that which the contractor was bound to execute. The joints referred to were not introduced into the drawings with any such intention, nor was it ever considered of importance whether the 10 inch widths were adhered to or not, the obtainment of the best seasoned materials being the first consideration; and in order to obtain these, variations were allowed to be made in the description and length of timber to be used.

As Mr. Pennethorne remarks in several parts of his Report on the roughness of the gangways, it is deemed proper to explain the cause from which such remarks chiefly originate. The gangways are the 3-inch planking laid in the middle of the sleeping wards, and form a passage between the platforms on each side, where the beds are laid; the gangways being formed of 3-inch plank (as shown in the Report presented by the Commissioners to Parliament in 1840), are sawn out of a solid piece of timber (say, for illustration,) near 12 inches square, and from which four planks would be obtained. The timber, as is well known, is not always square on its extreme edges, and it follows that the two outside pieces of timber would not have the same sharp angle, or complete finish, as those planks have which are cut out from the centre of the piece; and in order to procure the same angle a very serious waste of timber would be incurred. To avoid this (and especially as the price chargeable by the contractor would be much increased) the outside planks were laid with their smooth or perfect edges uppermost; the

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roughness which Mr. Pennethorne remarks on refers only to the underside of the floors, as seen from the rooms below them, there being no ceiling; as, however, the strength of the floor is not diminished by the roughness complained of, and which is a matter, therefore, merely of appearance, and one which would be entirely changed if ceilings had been provided, it is deemed that to have insisted on squaring the timbers on their undersides a considerable increase of expense would have been incurred, without any corresponding advantage.

Mr. Pennethorne says that "*the quality of the timber used is generally good*; Quebec red "pine was used, and not improperly so, and while spruce was improperly attempted to be used, none of importance was, he apprehends, used anywhere to any extent."

Should not such a consideration have induced Mr. Pennethorne to conclude that the supervision of the building arrangements was generally effective, and that the same attention which was necessary to produce these results, must have been directed generally to all parts of the building? For the quantity of timber used in the workhouses is not less than 40,000 tons, as before stated; and the difference in price between red pine and the more easy working spruce is very considerable; so that the temptation to attempt to substitute the latter for the more costly material is great, and in small scantlings there is sometimes much difficulty in distinguishing one from the other. It therefore required constant vigilance and caution to prevent the use of the inferior timber; many attempts were made, and it was in several instances found necessary to use rigorous measures to suppress their recurrence.

As with scantlings, so in the quality of the timber used, it may be stated that it is an unparalleled circumstance that there should be so few and such minor complaints in erecting 130 large buildings, in respect of the quality of the timber used in the work.

In reference to the brick-work, I would wish to observe that the bricks made in Ireland are of inferior quality, being badly tempered and ill burnt, and that much difficulty was experienced in getting such as were of good quality. To so great an extent did this difficulty occur that it was found in many instances necessary to take very decisive steps for the removal of all bricks objected to; and contractors, in order to obtain such as were of approved quality, were frequently obliged to pay prices much beyond those usually demanded for bricks in ordinary use. In consequence of the general inferiority of the Irish bricks, their use was avoided as much as possible, and brick-work was introduced only in such parts of the building as could not conveniently be otherwise executed.

With regard to the bricks used at Dungarvan, I believe Mr. Pennethorne is in error, for although some of those used have proved to be bad, the whole of these bricks were carefully examined prior to being used, and such as were deemed of bad or doubtful quality were rejected. The clay being of a very peculiar quality, it was very difficult to prove them, except by actual use; but the few bricks which have decayed were injured by the damp, which has now been, I believe, quite or almost wholly removed. There is, therefore, no reason to apprehend that the bricks generally are not of a durable kind. The walls of the Dungarvan workhouse were lined with brick, in compliance with the request of the Guardians. It is a mode of construction that I do not much like, and would not have originated, although I admit that it adds to the appearance of finish in the rooms. And although I differ with Mr. Pennethorne's assistant regarding the quality of the bricks, I am not surprised that he dislikes their internal appearance when broken, which is very unfavourable, and arises from the peculiar quality of the clay, an objection which exists against all the brick in that part of the country. The Cork bricks, which are so extensively used in the south of Ireland, are of very similar quality to those used at Dungarvan.

In reference to the omission of the iron columns, used for the purpose of carrying the floors of the dormitories over the school-rooms, and which are absolutely necessary in all the large houses, because of the great width of the rooms, and of there being two floors of dormitories to be supported, Mr. Pennethorne makes the following statement:—

Statement.	Explanation.
Page 8. As regards the construction, I ought to observe that in each of the school-rooms of every house visited (except Cootehill and Listowel) are four iron columns, standing along the middle of the rooms, to support the girders above. The two houses named were the only two visited which had been taken off the contractor's hands, and finished by the Commissioners; and the omission of these iron columns should not have been made in those two houses.	Mr. Pennethorne says, in each of the school-rooms of every house he visited, except Cootehill and Listowel, there are four iron columns standing along the middle of the room. The houses stated to have been visited by Mr. Pennethorne are given in Table No. V., page 90, of his Report. Among the houses named there are several without any columns at all, and others have only three such columns. The Listowel workhouse, being only of the same width as the small-sized houses, and having but one floor of dormitories over the school-rooms, the columns were intentionally omitted, as in several other instances, it being found that they might be dispensed with, by the arrangement of the platforms and the increase in the size of the girders. This caused the omission of the columns at Listowel. At Cootehill, however, where there are two floors above the school-rooms, and of the width of the largest-sized houses (in which columns have been universally used), *the columns stated by Mr. Pennethorne to have been omitted, are not omitted, but are standing as originally erected.*

Until I became somewhat familiar with the statements in Mr. Pennethorne's Report, and with the value belonging to them, I almost doubted the strong evidence I possessed that the columns had actually been erected in the school-rooms, because I deemed that no such positive statement could be made without foundation, by one whose assertions might, from his position, seriously affect the character and professional reputation of those whom he censured.

3. Execution of the Works of the Buildings.

As Mr. Pennethorne has stated that he surveyed the Cootehill workhouse, and states the columns are omitted in the school-rooms, I submit a copy of a letter received from the clerk of the Guardians, in answer to the inquiry simply as to the number of columns in each of the school-rooms.

COOTEHILL UNION.

SIR, *Board-room, May* 25, 1844.

I BEG to acknowledge the receipt of your letter of the 23rd instant, and in reply to state that there are four iron columns in each school-room of this Union workhouse.

I have the honour to be, &c.,
(Signed) N. WALLACE, *Union Clerk.*

W. H. Hopper, Esq.,
&c. &c. &c.
Poor Law Office, Dublin.

4th. As to the Cost of the Buildings.

4. Cost of the Buildings.

In remarking on this portion of Mr. Pennethorne's inquiries, I will in the first place offer some brief explanation on the extra work, and some general remarks on the calculations for the prices allowed to the contractors.

The following is a short explanation relative to the plans prepared for the Irish workhouses. The designs approved, in 1839, by the Poor Law Commissioners, were prepared with a view to the greatest economy out of outlay; the constructive portions of the buildings being calculated for a sound and substantial edifice, as may be seen from the detailed estimate. The particulars of the fittings intended were also prepared, and set forth in detail. In the Appendix (Letter H) is an estimate in detail for a workhouse, having accommodation for 1000 persons, and the particulars (Letter I in Appendix) show the fittings which were considered requisite for such house.

An additional column is given, with the estimate, showing the prices at which the works have been performed; this was prepared in October, 1842, and it shows the calculations in which I assumed 8000*l.* as a fair estimate for a house to contain 1000 persons.

The estimates, therefore, which were submitted to the Poor Law Commissioners were not only fair, but were higher than the works in general have actually cost. The amount expended in the erection of the workhouses has certainly exceeded the amount of the estimate, solely, however, in consequence of additions having been made to the original plans, of which four sets were made; these, with several different kinds of elevations, were sent to Mr. Pennethorne at his request, but which he has not returned, having, as he states (in a letter to the Commissioners), lost them in England or Ireland.

By comparison of the original plans here alluded to, with those from which the buildings have been erected, the additions could be plainly discovered; they would be found to consist of the erection of idiot wards in men's and women's yards, the formation of additional yards, and numerous other works not originally intended to be done. The fittings designed for the workhouses were also much less costly than those ultimately determined on, and those executed have therefore considerably exceeded the amounts included in the loans for them.

Prior to the completion of the general printed specification for the buildings, many minor details in the construction, as originally intended, were, after much consideration with the Commissioners, determined on, and they were executed accordingly.

A general printed specification was prepared applicable to each locality. Those portions requiring local description or varying arrangements being left to be filled in manuscript. On this specification much and careful attention was bestowed, and the printed portion, with very rare exceptions, has been found applicable to all the buildings, and has successfully accomplished the purposes for which it was prepared.

The use of printed specifications, and lithographed detail drawings, was attended with many advantages. There was, however (owing to the rapidity of the earlier operations), much difficulty in getting them all finished so soon as required: and contract drawings had to be prepared and sent out in some of the first houses contracted for, with detail drawings somewhat different to the larger working drawings afterwards completed and lithographed. When the lithograph drawings were completed they were carried into execution, and those containing more work, as in the turrets, occasioned extra items of charge beyond the contract work. The lithographed drawings, however, were better than the original detail drawings, and it would have been disadvantageous to have omitted them.

It was not from the imperfection of the original plans, as stated by Mr. Pennethorne, but from other circumstances, that various other additional works were, from time to time, originated; and where the buildings were already contracted for, the execution of those works had to be paid for as extra the contract, in respect of those houses contracted for prior to their being determined on; but they were with little if any exception, successively introduced into the contracts made after they were determined on.

Among the principal of those works, are the alterations of the floors for the construction of gangways, as explained in the Annual Report of 1840, being an arrangement new in application, and, as proved by experience, superior in practice to the bedsteads, and which change in the design effected a saving of many thousands of pounds to the Unions.

The other alterations consisted of additional shed buildings, additional fire-places to rooms

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for providing for resident schoolmasters and schoolmistresses. The formation of potatoe store in one of the stores near the kitchen by substitution of a stone-wall for a half-brick partition, and construction of double door in the serving room leading into dining-hall, wash-house, and kitchen. Yard doors to each of the idiot and infirmary yards, and boys' and girls' yards, originally considered to be unnecessary. Additional ventilators considered advantageous, arising from suggestions made to the Commissioners by different persons during the progress of the works. Increased size of privies to the large houses, arising from the same cause. Addition of skylights in roofs, and additional eave-gutters and other minor works common to building operations originating from various causes, were, from time to time, included in the contract drawings of those houses, which were planned after such additions had been determined upon.

These items in many of the houses, and the fixtures and fittings common to all, together with the walling connected with the foundations and other special works, such as brick linings, boundary walls, cellars, and works carried into effect at the Guardians' request, have constituted the extra bills, the value of which have had to be adjusted by the architect of the Commissioners.

In page 18 will be found the following statement by Mr. Pennethorne, and upon which I will offer some remarks:—

> "The cost of all the before-mentioned alterations and additions is set forth in the table, a reference "to which will show the houses at which they have severally occurred.
>
> "The necessity for all these changes has probably arisen from the houses having been built upon "plans copied from the same originals, and from the great haste and the imperfect manner in which "the working plans were originally considered and put to paper; all these works have probably been "beneficial to the houses, which would not have been complete without them; nevertheless the com-"plaint of the Guardians as to their not having been included in the first contracts, and as to the "extra expenditure which has been caused by such omission, appears to me to be well founded and "just."

In the Table alluded to, the several works are set forth subdivided in many columns; fixtures are made up with ordinary extra works, and *vice versâ;* works are also enumerated which occur only in one or very few of the Unions, and the whole makes a considerable display, without rendering clear that which would be most important in regard to the statement here made, as to how much of the work arises from the imperfection of the original plans, and how much for "the alterations made in the buildings on account of the system adopted in making the plans," which, in page 21, is set forth as one of the principal grounds for the useless expense said to be incurred with regard to the sum of 50,000*l*. hereafter to be remarked on.

An examination of the analysis of the 42 accounts will show—first, that many of the houses embraced in it are those first planned, and necessarily having as extra works what were included in later contracts. Second: That those works which the specification left to be adjusted, as the foundations of the walls, &c., and the fixtures, are those which are necessarily more or less common to all. Third: That those items which belong to the fixtures are not kept with the lower table, which is represented to embrace the fixtures, and thereby displays as extra works what were always and legitimately part of the fixtures, as, for instance, the drawers, shelves, &c. to stores; the cocks and pipes to the washing-trays, the trays being included in Mr. Pennethorne's list of fixtures, while the cocks and pipes which originated with the adoption of trays, are made as extra work. Fourth: That owing to the credits which are taken from contractors at the end of their accounts, several works are represented as extras, which have arisen from a substitution of the works so charged for other or contract works omitted; as, for instance, a partition of brick or such kind of wall being, for particular reasons, substituted for stones: the account, therefore, displays an extra, whilst equivalent value, or thereabouts, may be taken in the credits.

Except the works connected with the site, which will be presently remarked on, nearly the whole of these works are independent of the early arrangement of the plans; and, with very little exception, they could have been executed without them. They are chiefly works originally considered not to be necessary, and determined on only during the progress of some one or other of the buildings, and carried out afterwards in all alike.

Mr. Pennethorne has failed to show in what respect the original plans were imperfect, or that they were sent out few in number and loosely and imperfectly drawn. The drawings are all in existence, and except a few of the first houses, which were contracted for before it was possible to get *all* the detail drawings ready, I believe that they will be found to differ much from Mr. Pennethorne's description.

One principal item of the extra works is the walling in foundations, and work connected therewith. The specification provided for limited depths, the quantity executed was to be ultimately ascertained and to be paid for, according to the increase on the contract depths, or to be deducted from the amount of contract where less than the contract depths; which was the case in several instances, though generally there was an excess, which was, however, in some cases very small, in others, owing to peculiar circumstances, rather considerable.

The contract arrangements, however, although in many instances considerably increasing the extra bill, was in my judgment by far the best, if not the only practical one; and in the loans a sum was always provided for contingent extra works of this kind, though this sum was found to be frequently too small. No other arrangements would, I think, have accomplished so successful a result; for, in 130 large buildings, carried on with great rapidity in unfavourable seasons, and in the construction of 1,500,000 tons of masonry, I am not aware of any portion of a wall which requires to be taken down and rebuilt, from having bad foundations. Had the drawings been sent out imperfect, could such a result have been attained? Or, is there in any portion of such an extent of walling any part proved to have been unnecessary? On the other hand, had not

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the specifications been framed as they were, I feel no hesitation in asserting that frequent litigation would have ensued, which has now been avoided.

Unless it can be shown, in consequence of the system followed, the looseness of the specifications, or the imperfection of the drawings, that alterations have been numerous, and thereby a really useless outlay has been incurred, it does not follow that the works executed beyond those performed, under the contract, have been done at any other disadvantage than that which may be supposed to belong to their payment at an increased price.

The whole effect of the additional works resolves itself therefore into the question of cost, and whether it would not have been better to have included those works in the contracts. Except for the undefined depths of foundations, it would perhaps have been better, for various reasons, that they had been so included; but, nevertheless, it does not follow that the payment for them, according to their value, should materially increase the outlay; and, as most of them are works arising from successive additions, rather than any real oversight, it remains to be seen whether they have been paid for at such rates as would justify the charge made of a wasteful expenditure. Certain it is, and Mr. Pennethorne admits it, that the additional works have been advantageous, and the carrying them into execution, although beyond the contract, cannot, on that account, be reasonably censured. It may be remarked, moreover, that the saving alone arising from one of the charges for the construction of gangways, considerably more than covers the expense of all the minor additions which were made.

Mr. Pennethorne states that the mode of obtaining tenders for the erection of the workhouses, and the amounts of the contracts have been satisfactory in all instances except those of Strabane, Lowtherstown, and Limerick. The latter Union is the only one in which the Guardians charge the Commissioners with partiality in the selection of a builder. In the cases of the other two Unions the Commissioners are charged with mismanagement. Mr. Pennethorne states that the Guardians at Rathkeale and Belfast requested him to inquire into the subject of the contracts generally. He also says that " I shall report hereafter as to the " tenders for Limerick, Strabane, and Lowtherstown, in which places there may have been " mismanagement." He adds, however, that, speaking generally, no complaint has been made, nor is there, in his opinion, just cause for any complaint as to the mode in which tenders for the first contracts have been obtained, nor for the sums contracted for.

Some explanation will be offered with reference to the above contracts, but more especially with regard to that of Lowtherstown, which Mr. Pennethorne has represented to have been made under circumstances which give the proceedings an unsatisfactory aspect.

From Mr. Pennethorne's Report in the case of Limerick, it would appear that partiality had been shown in the choice of the contractors. The Commissioners deemed it to be advantageous to the Union that the tender of Sir Thomas Deane and Co. should be accepted, on its amount having been reduced. This firm was then engaged on public works at Limerick, and had already become contractors for Rathkeale and Newcastle workhouses, and their attention was thus necessarily directed to works in that part of the country; and as the Limerick workhouse is, with the exception of that at Cork, the largest of the new buildings, it was considered very desirable to secure contractors whose attention could be calculated upon for the due performance of the contract.

Messrs. Patterson and Co., who had forwarded a tender for the erection of the Limerick workhouse, had sent in one for the Strabane workhouse also: the contract for the latter was in abeyance, pending the settlement of some difficulties which had arisen relative to the site; but it had been determined, I believe, to accept the tender of Messrs. Patterson (which was considered the most eligible) as soon as the adjustment of the difficulties referred to, should allow the erection of the workhouse to be proceeded in. The attention of Messrs. Patterson being thus confined to the north of Ireland, advantage resulted to all parties, and especially to that Union, as will be seen from the contract for this workhouse having been made at an amount less than usually paid for workhouses of the same size; this is shown in page 43 of the Report.

With respect to advertising anew for tenders, it is to be observed that the Commissioners, by adopting that course, would have rendered themselves liable to claims from every one of the parties who made tenders, for the cost which had been incurred in their preparation.

I think I have just grounds to complain of the mode in which Mr. Pennethorne has represented the proceedings taken in selecting the tender for the erection of the Lowtherstown workhouse, in reference to which I submit the following statement:—

Tenders were received from three parties in December, 1840 (as shown in Mr. Pennethorne's Report, page 78). They were—

Samuel Gamble	£5,700
Messrs. Hague and Co.	5,100
Messrs. M'Elroy and Hardy . .	4,072

On the 15th of January following, Messrs. M'Elroy and Hardy appear to have written to the Commissioners, stating that they could not do the work for less than 4950*l.*, having, it is presumed, reconsidered the quantities and prices on which they had formed their first estimate. The three original tenders, and Messrs. M'Elroy and Hardy's amended one, were referred to me by the Commissioners for my opinion on their eligibility. The Assistant-Commissioner having stated that Messrs. M'Elroy and Hardy are respectable persons, I recommended the acceptance of their amended tender, reporting that the first received from them was, in my opinion, too low to warrant the expectation that the work would be properly performed for the amount; and I should, under similar circumstances, consider it to be my duty to act in the same manner again.

The ground on which I advised the acceptance of the tender was, that it approaches nearly

APPENDIX TO REPORT.

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in amount to my estimate of the value of the work. It is to be observed, that many workhouses had been contracted for prior to that at Lowtherstown, and the fair value of the work had been very closely ascertained, in localities where materials were of the average cost. Mr. Pennethorne censures my recommendation of this tender, and quotes a portion only of a letter I addressed to Mr. Stanley, in reply to one received from him, dated the 16th February (about a month subsequent to my report on the tenders), and he remarks that if I had negotiated with the parties they might have been induced to accept a less sum, viz., 4500*l.* instead of 4950*l.*, as recommended by me, and Mr. Pennethorne states that 4500*l.* would be about equal to the amount of my estimate. This, however, is not correct; my general estimate of the cost of the workhouses having, as Mr. Pennethorne knew, been made without reference to the idiot wards, and other additions to the original plans. I may further remark, in reference to this statement, that, to have acted as Mr. Pennethorne suggests I should have done, would have shown me unworthy of public employment. In the first place I should, on the faith of an unofficial proceeding, unofficially communicated to me, have abandoned my own previous deliberate judgment on the tender, and my own previous official report recommending its acceptance. In the second place, such a course would have afforded just reason for the charge of mismanagement, because I should have recommended for adoption an amended tender at a sum less by above 500*l.* than I deemed to be fair—a sum which bears a large proportion to the estimated value of the whole of the work. Whether Mr. Pennethorne's mode of conducting his inquiries was such as ought to entitle him to credit, may be judged of in some degree by the concluding paragraph in his Report on the Lowtherstown Union.

Mr. Pennethorne states—

1st. That the house is completed, and the works have been extremely well done.

2nd. That the Guardians refuse to take the house off the Commissioners' hands.

3rd. That the Guardians refuse to raise a second loan on account of the unnecessary expenses which have been incurred.

4th. The consequence is, there is no fund, out of which to pay the contractor, and by this dispute a most respectable, and (as he believes) an honest man (the contractor) is ruined.

5th. That there are other cases of the same kind in Ireland brought about by similar causes.

The answer to these several allegations are as follows:—

1st. The house is not completed, some of the works are defective, and the contractors are under express requirement from me, to make good their engagements.

2nd. The house has not yet been declared fit for occupation by the Commissioners. The Guardians, nevertheless, have proceeded in the furnishing of it, and the key is in the hands of the clerk of the Union.

3rd. The Guardians have never been asked to raise a second loan. The amount of such further loan, as may be necessary, is not yet ascertained. At the time when Mr. Pennethorne visited this house, the contractors' account had not been sent in, nay, at the time he wrote his report on it, the expenses incurred had not been ascertained.

Mr. Pennethorne, himself, in Table No. IV., states that the extra bills at Lowtherstown had not yet been furnished by the contractor to the Poor Law Commissioners.

4th. There is no dispute between the Commissioners and the Guardians, or between the Commissioners and the contractors.

As to the contractors being ruined, in consequence of any money due to them having been withheld, the contractors had, at the time of Mr. Pennethorne's visit to the Union, received from the Poor Law Commissioners advances, beyond the amount of their contract, and it has already been stated, that the account for the work beyond the contract had not been delivered at the time.

The account has since then been received, and at the request of the Guardians it has been submitted to them. I attended them on the 21st May by their wish, and went into the consideration of the local prices with them; the Guardians acted on that occasion in a liberal spirit; and showed no other disposition than to pay the contractors what was fair; and the last request they made to me was, that they hoped I would take care of their interests, and that they should not have to pay more for their additional works, because the contractors had a low contract, or because they had lost money by the same. I repeat this in order to show that in the opinion of the Guardians, the tender accepted by the Commissioners on my recommendation was not considered by them to be an exorbitant one.

5th. If there are (as he says) cases in Ireland of the kind here described by Mr. Pennethorne, this case at all events is not one of the number.

With reference to the adjustment of the accounts furnished by the contractors for the works executed by them extra the contract, Mr. Pennethorne's Report contains many erroneous statements; and the important conclusions drawn therefrom are not warranted by the evidence produced. At page 12, he states that "the complaints of the Guardians with regard to these extra "works are almost universal," and in page 23, that "in many cases after the Commissioners had "sent the second orders to borrow, they were pressed to show the bills, which were laid before "the Guardians."

It is believed that in every case in which it was necessary to obtain an additional loan for the payment of the contractors' extra bill, a copy of the certified accounts was sent with the additional order, or had been laid before the Guardians prior to the issue of such order.

In only 11 Unions out of the 115, for which the building accounts have been settled and certified, have the Guardians employed surveyors to inspect the contractors' claims. Mr. Pennethorne visited nine of the workhouses, for which the accounts were thus referred to surveyors; the other two instances being those of Lisburn and Ballycastle. In order to show the result of these references I subjoin the following statement:—

STATEMENT relative to the BUILDING ACCOUNTS which have been referred by Boards of Guardians for Examination hy Surveyors.

UNION.	Amount of the Contractor's Claim.	Amount of Architect's Award.	Valuation made by Guardians' Surveyor on the Account adjusted by the Architect.	Difference between the Valuation by the Poor Law Commissioners' Architect and the Guardians' Surveyor.	Observations.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	
Dunshaughlin .	956 19 10	855 17 8	. .	. .	Explnnations and particulars of the prices allowed were given to the Guardians at several of their meetings, and the account made by the Guardians' surveyor was ultimately set aside.
Limerick . . .	5,288 11 10	4,336 13 3	3,807 1 4	529 11 11½	The Commissioners' architect met a Committee of Guardians and their surveyor, and went through the account; and the Committee of Guardians reported in favour of the award made by the Commissioners' architect.
Londonderry. .	1,831 2 0	1,656 1 5½	1,363 16 0½	292 5 5	This account was referred to the architect of the Board of Works, who approved of the prices allowed, generally.
Rathkeale . .	2,474 10 6½	1,924 12 10	1,687 3 3¾	237 9 6¼	This account was examined by the same surveyor as was employed by the Guardians at Limerick. The Rathkeale Board refused to borrow except in accordance with the valuation made by their surveyor on the adjusted, and not on the original, account. The nature of the duty done may be judged from the fact. that the valuation of the account, which amounted to 2474*l.* 10*s.* 6½*d.*, was paid for by the sum of 5*l.*, including travelling expenses.
Strabane . . .	3,380 13 10	2,338 1 2½	2,011 14 8	326 6 6½	See Appendix paper, letter F. This account, like that for Londonderry, was referred to Architect of Board of Works.
Donegal . . .	1,799 10 8	1,249 11 5	The account has not yet been returned by the Guardians. The amount is shown thereon.	The Guardians' surveyor allowed over 500*l.* more than the amount certified.	It was the original account as furnished by the contractor, and not the adjusted one (as in the above cases), which was sent to the Guardians. The surveyor employed was well qualified by professional position for the duty required. The Guardians, however, refused the valuation thus made by their own officer, and requested the Commissioners' architect to value the work done. Mr. Pennethorne states in Table No. IV,—"This bill was submitted in an "unfinished state, and when again required was in the hands of "the Guardians." Mr. Pennethorne is in error, the account having been submitted in a finished state, and contained on the face of it both the valuation of the Guardians' surveyor and the architect of the Poor Law Commissioners. The account remains in the state it was seen by Mr. Pennethorne.
Ballymoney . .	1,834 0 9	978 0 0	Same as Commissioners' architect.	Nil.	The original account was sent to Guardians' surveyor, whose valuation and that by the architect of Poor Law Commissioners agreed, the usual rate allowed in other instances being awarded by the Commissioners' architect.
Antrim . . .	1,449 2 2¾	728 4 8	Ditto.	Nil.	Ditto, ditto. The account is only just closed.
Omagh . . .	2,965 17 3½	2,174 8 11½	1,337 1 10	837 7 1½	This account was valued by the county surveyor, who allowed, in some instances, less for the work than the first cost of the materials used; and although the account is now settled, the Guardians, for a long time, refused to borrow the necessary amount except their surveyor's valuation were adopted.
Coleraine . .	1,545 5 7	1,245 17 7	1,253 7 1½	7 9 6½	This account, like Donegal account, was examined and valued by the Guardians' surveyor prior to the valuation by the architect of the Poor Law Commissioners.

From the above it will be seen, that where the accounts have been referred to the Guardians prior to the examination by the architect, the valuation of the surveyors employed on the part of the Guardians has been either greater, or has equalled, that of the Commissioners' architect. It is, therefore, submitted as a reasonable inference, that if the accounts which have been reduced below the amount certified to by the Commissioners' architect to be the value of the works, had been sent to the Guardians in their original and unexamined, and therefore undiminished state, that the surveyors so employed by the Guardians would not have made a total reduction greater than was made by the Commissioners' architect. For it should be borne in mind that the surveyors whose awards were less in amount than that of the Commissioners' architect, *were employed for the express purpose of reducing the amount certified*, and not in the character of arbiters on the just claims of the contractors. On the contrary, had the accounts been sent in their original condition to the Guardians, it is reasonable to suppose, that in the aggregate the amount certified by the Commissioners' architect would have been acquiesced in by the Guardians, as was the case with the Donegal account, and several other Unions.

The valuation of the works done extra the contracts, having constituted a very important and difficult part of the architect's duty, much care and attention were given to the subject, and the particulars of the mode of procedure therein were fully explained in the Eighth Annual Report made by the Poor Law Commissioners to Parliament (1842); and may be briefly stated as follows:—on the receipt of the account it was examined in the first instance, to ascertain whether any of the items charged therein were provided for in the contract specification. It was next examined as to the quantities charged therein, and these were determined

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either at the building by actual measurement, after the account had been received, or from documents which had been previously sent to the office, in reference to the dimensions of the work done. The account was then finally examined, in reference to the prices charged for the different kinds of work done extra the contract; and in every case the prices allowed were determined after careful consideration of the prime cost of the materials used.

I may remark that Mr. Pennethorne has impugned the accuracy of the quantities, and in some instances applied for dimension books, which he supposes were kept, in accordance with the system pursued in London. Where two surveyors meet, as is usually the case in London, in order to determine the quantities charged; the course presumed by Mr. Pennethorne to have been followed is best, because defined measurements are in question. In the case of the contractors for the workhouses, it was the practice for them to furnish their accounts for the works, and measurements were made on the spot, with the contractors, or the contractors' charge was received and checked according to circumstances. This was for several reasons deemed the best course that could be adopted, especially when it is considered that the works done were in all cases of a very similar nature. In support of this practice, it may be mentioned, that there were only three instances in which the quantities allowed were disputed by the Guardians. These were Londonderry, Strabane, and Omagh, and in no one of these three have the quantities allowed been proved to be incorrect.

Notwithstanding Mr. Pennethorne's statement relative to the quantities, I am still of opinion that the quantities allowed, if the works were remeasured, would be found to be correct; and I will only add, that if Mr. Pennethorne had expressed an opinion that the papers sent him were insufficient, I would very willingly have supplied such information as would have satisfied any professional man that the quantities were correct. There was every desire to give ample information, and every facility for determining on the propriety of the course adopted; for it was impossible to foresee that the papers were insufficient for Mr. Pennethorne's purpose, and the first intimation given that they were so, was that found in his Report.

I cannot forbear stating that I consider the course pursued by Mr. Pennethorne, in this instance, to have been very unprofessional and extraordinary. It appears to me to be quite inexplicable, that Mr. Pennethorne did not while he was at the buildings ascertain by actual measurement (as the quantities allowed appeared to him to be questionable), whether they were, or were not, correct. This would have been a satisfactory course. Had this been done, I feel confident that Mr. Pennethorne would have found nothing to justify his doubts relative to the allowances made. If any intimation had been given of the doubts referred to, statements of the depths of the walls in any particular place, and every other information which would have facilitated Mr. Pennethorne's inquiry into the facts relative to the quantities of work done, would, as before stated, have been promptly supplied.

As it is on the adjustment of the contractor's accounts, and the alleged extravagant prices therein allowed, that Mr. Pennethorne chiefly builds his proposed reduction of 50,000*l.* out of the 225,000*l.* stated to be the amount for extra fixtures and fittings, it is desirable to investigate the mode in which he appears to arrive at this conclusion, and the manner in which it is supported.

In page 20 of Mr. Pennethorne's Report is the following statement.

> "All the fixtures, fittings, &c., and the greater part of the extra works for which the sum of "225,000*l.* has been expended, have been necessary for the completion of the buildings; but how "much less than that sum these fittings and works would have cost if they had been included in the "first contracts it is impossible to know; some approximation, however, may be made to a knowledge "of how much of the same 225,000*l.* has arisen from overcharges in the prices of these works, when "they were required to be done as extras. The opinions of some of the Guardians on this subject, in "respect to their own particular cases, may be gathered from the bills that have been examined in "detail by their architects, and by comparing their deductions with the amounts certified."

—	Bill Certified.	Bill according to Guardians' Architects.	Deduction per Cent.
	£. s. d.	£. s. d.	
Omagh . . .	2,174 8 11½	1,337 1 10	38
Limerick . .	4,453 11 7½	3,923 19 8	12*
Strabane. . .	2,338 1 2	1,763 13 3	25
Londonderry .	851 11 9	624 2 11	25

* Without quantities.

It will be seen that Mr. Pennethorne has selected from the foregoing instances in which the Guardians have employed surveyors the Unions of Omagh, Limerick, Strabane, and Londonderry. The amounts of the contractor's claims are not set forth in Mr. Pennethorne's statement, but may be seen in the statement of the nine Unions before mentioned, where it is also shown that these accounts were valued by the Commissioners' architect before being sent to the Board of Guardians, who employed surveyors to value, and reduce them. The average amount of the reduction on the per centage set forth for the four Unions, is 25 per cent. The deduction on 225,000*l.* amounts at this rate to 56,250*l.* being 6,250*l.* beyond the amount of 50,000*l.* alleged to be an useless outlay.

Whether the four accounts in question will in their investigation support Mr. Pennethorne's

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conclusions remains to be seen. It is clear, however, from Mr. Pennethorne's own showing, that the four accounts are given for the purpose of establishing a per centage which would give an approximation to the amount to 50,000*l.* alleged to be uselessly expended.

In investigating these four accounts I will first cite the Limerick Union. The amount of the contractor's claim was 5,288*l.* 11*s.* 10*d.*, which, after careful consideration of every item, was reduced to 4,336*l.* 13*s.* 3*d.* The account was then submitted to the Guardians, to show the particulars of the expenditure incurred. The Guardians, to inform themselves of the fairness of the account, employed the local valuator of the Union, who examined the account (as reduced by the Commissioners' architect) and who reduced the prices allowed still lower; an operation very easy to perform.

At the request of the Guardians, the architect of the Poor Law Commissioners then attended their meeting to go into the account, and after going through the same with a Committee of Guardians appointed for that purpose, the account as originally adjusted by the Commissioners' architect, was recommended by the Committee to the Guardians, and the additional loan was applied for accordingly.

The other three Unions are Londonderry, Strabane, and Omagh.

The difference between the valuation of the architect of the Poor Law Commissioners and the Guardians' surveyor, at Londonderry, arises from causes which have been fully explained in returns to the Honourable the House of Commons. The prices allowed by me have been examined by the architect to the Board of Works, and reported on by the Commissioners of the Board of Works, as fair and reasonable. Mr. Pennethorne has investigated the account, and reports an alleged discrepancy, on an erroneous calculation, to which he has devoted a considerable portion of pages 26 and 27 in his Report on that house, viz., that the tongues of the gangways are made of deal instead of oak, and he more than once displays this slight discrepancy, which may or may not be correct, and if so, partially perhaps. *The difference in price, however, Mr. Pennethorne says, is not worth a name,* although he avails himself of the discrepancy to offer comment on the existence of extras. The chief consideration, however, is the broad question of the fairness of the valuation of the extra works, rather than the question with regard to the occurrence of extras.

Mr. Pennethorne adduces nothing calculated to disturb the fairness of the prices allowed in the account, notwithstanding so much consideration had been given to the subject. On the other hand, it may be added, that it can be shown that the prices are not only fair, but very moderate in amount, as will be seen by reference to the prices given for work done in erecting the large barracks at Londonderry, which were completed last year at a cost of nearly 30,000*l.*

Those barracks are built with materials very similar to those used in erecting the workhouse in that town, most of them having been procured from the same sources. The barracks were not built by *gross* contract, but by contract for *prices,* much competition prevailed, contractors from each of the three kingdoms having tendered for the work.

The workhouse was built by contract, with the exception of that portion of the work which was paid for by measure and value, it, however, can be proved, that although the prices paid for the barrack work were the lowest which could be procured by public competition, they nevertheless exceed those which have been given for similar work executed in the workhouse; the value of which had been determined by the Commissioners' architect after consideration of the prime cost of the materials employed in the same.

With reference to the Strabane account, I may state that the person employed *to reduce* the account (and which had been previously adjusted by the Commissioners' architect) was a local tradesman. The sufficiency of the objections advanced by the Guardians may be determined by reference to the paper (F.) in Appendix, being a Report of the Committee of the Guardians on the building account, with counter statement by the architect.

The fourth case is that of Omagh workhouse; the valuation of the extra work was confided by the Guardians to the county surveyor; a gentlemen, who, however well qualified for the duties of his position, is not professionally familiar with those of an architect, which, in many respects, differ from the qualifications required of an engineer, (the profession for which he was educated). The Report made by the county surveyor, as well as the mode he adopted in valuing the works, will demonstrate the truth of this opinion. A few quotations are here given from the surveyor's Report to illustrate the above. First, the charge for lead, which has been used in the ordinary way, and in the places where flushings are usually put. In respect to this charge the following strange statement is made by Mr. Rowan, the gentleman referred to:—

> " N.B. Although I have set down the above charge for lead, I find no clue by which I can learn " where it has been used. I have charged it on the grounds *that it may be somewhere that I have not* " *thought of.*"

Again, with regard to the price of lead, Mr. Rowan states that he allows 20*s.* 6*d.* per cwt. for the work; now the prime cost of the material, exclusive of the cost of carriage from Derry, was at the time upwards of 21*s.* per cwt. As lead is not an article that can be procured below the current market price, I have selected it for remark, because every one is familiar with its value; and it may be taken as a fair illustration of the mode adopted in arriving at the conclusion that 50,000*l.* too much has been paid for the building of the Irish workhouses.

I will give one more instance in order to prove the county surveyor is not familiar with building accounts. It is in respect to the sum allowed for such deal floors with joists 6 inches by 2 inches, the joists being, I believe, of Memel, and the floor of American deal (not yellow pine); 40*s.* is the price allowed by the surveyor per square for the work.

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The inconsistency of the prices for the same description of material, may be seen from the following instance, of which there are many similar :—

For joists 4 inches by 2 inches, 2*d*. per lineal foot is allowed.

For joists 6 inches by 2 inches, 1½*d*. per lineal foot is allowed, although the latter, in any given length, contains 50 per cent. more timber than the former!

I will close my remarks on these accounts by pointing out the difference of opinion which the persons employed by the Guardians on the three last mentioned accounts, exhibit in their several valuations. I refer to the prices allowed for the gangways, a work common to the three houses, and executed from similar drawings, for the purpose of saving the expense of bedsteads.

The prices allowed by the Guardians' surveyor for the gangways in the workhouse at Derry (the port where the timber is obtained) is,

Per superficial foot	10*d*.
At Strabane, 13 miles from Derry (where the timber is obtained)	9*d*.
At Omagh, 34 miles from Derry (where the timber is obtained)	6*d*.

The inverse ratio of value, in proportion to the difficulty of obtaining materials necessary for the work, will be seen in the above statement; yet such valuations are taken by Mr. Pennethorne in proof of his several assertions of overcharges in the extra bills.

Thus Mr. Pennethorne states in page 21,—

> "I have no doubt whatever that the prices allowed in all the bills have been high. I have also "examined the bills themselves, as far as they could be understood, as to the mode of measuring the "works, and having fully considered these extra bills, the high prices allowed, the mode of measure-"ment, the alterations made in the buildings on account of the system adopted in making the plans, "and other circumstances, I have come to the conclusion that the 130 Unions have been improperly "put to an expense of not less than 50,000*l*. out of the 225,000*l*. for extras, fixtures, and fittings."

The foregoing quotation follows the statement of the accounts for the four Unions, on the valuation of which Mr. Pennethorne has made his approximating estimate relative to the 50,000*l*.—But in no one instance has Mr. Pennethorne set forward any detail calculations to show the sufficiency or the insufficiency of the prices remarked on. This he has uniformly avoided; he, however, says that—

> "For my own information and satisfaction, I have collected to some extent particulars of the prices "usually paid for similar works in several localities visited, and obtained from many of the Boards of "Guardians copies of tenders and bills for several works done by them in building boundary walls, &c. "which, in every case, were considerably below the prices allowed in the certified bills."

Every one familiar with Ireland, is well aware that small local works are undertaken by the tradesmen of the locality at sums much below what a respectable contractor could perform the work for; and it may be added that no respectable and experienced architect in the country, who had been concerned in the erection of public buildings, would have made the prices thus charged by local tradesmen, the basis of his calculations in determining the sums at which he would estimate the cost of building operations of an extensive character.

From considerations of the above kind, the Poor Law Commissioners have in every instance where it was practicable, left it to the Board of Guardians to obtain the performance of the minor additional works by local contract; and in reference to which Mr. Pennethorne has collected so much information. But it is contended that the information so obtained has necessarily misled him, because he has not taken into consideration any of the matters above referred to as causing a smaller price to be required for such work. The parties, moreover, who have made contracts with the Guardians are the very men, in most instances, whom the building contractors would have employed at day wages. Such is the position of many of these individuals, that it is customary to allow a certain sum per week as subsistence money, to enable contracts to be completed by the parties, although the engagements may be of very small extent. The persons thus employed had also many advantages which the large contractors could not obtain, such, for instance, as quarry right, frequently enjoyed by the tenants of the estates, or from the lords of the soil; also assistance in the carriage of the materials, &c. These, together with the making of roads from the quarries, &c. are heavy charges on contractors for large works, but are generally of little or no cost to the local tradesman. Hence it follows that the large contractor could not perform trifling works on the same terms as the small tradesman; and the latter could not undertake to execute works of great extent.

The only fair mode by which the prices which should be given for work can be calculated, is by reference to the prime cost of the materials used. Had Mr. Pennethorne given any details in support of his assertions in reference to prices, it would not have been difficult to meet his Report on the subject; but his statements are quite indefinite on the point. Thus in his Report on the Omagh workhouse, he says that 4*s*. 9*d*. per Irish perch (of 31½ cubic feet) is nearer to the fair price of the work than 7*s*. 6*d*. is for such masonry. And in the case of the Scariff Union, where the sum allowed for masonry is 6*s*. per statute perch (of 24¾ cubic feet), he states that the price is most unreasonable. It is, however, contended that there is nothing shown by Mr. Pennethorne which will prove these assertions to be well founded.

I may here observe that, within the last fortnight, a calculation of the cost of a perch of masonry was submitted to me by the Committee appointed by the Enniskillen Board of Guardians, which I attended with a view of conferring with them in reference to the contractor's accounts. The prices were very carefully considered by the Committee, who were aided by an experienced local builder, and every item was carefully canvassed by them; but I do not quite concur in the quantities stated—for instance, I think there is too much stone calculated for, and too little sand; and I feel myself justified in this opinion by the results of numerous experiments made with various kinds of material in different localities in Ireland, in order to determine the quantity of material necessary to execute any given amount of work.

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Calculations made with the Building Committee appointed by the Board of Guardians of Enniskillen Union on the Price of a Perch of Masonry, the statement being made by the Guardians, assisted by a highly respectable Local Builder.

	d.	£.	*s.*	*d.*
Stone, 8½*d.* per ton	8½			
Carriage of same to the margin of the site, as actually paid	8½			
Carriage to building	2½			
2½ tons of Stone, say at	20	0	4	2
Barrel of Lime, at 16*d.* per barrel (roach)		0	0	8
Sand—cost of a cot 2*s.* 6*d.*, containing 3 tons, say		0	0	2½
Labour per perch		0	2	0
		0	7	0½
Add 15 per cent. Profit, including Establishment Charges, Implements, &c. &c.		0	1	0
		£0	8	0½

Calculations made in the manner shown above are convincing, as the detail of each item comprising the charge can be thoroughly examined; and it is much regretted that Mr. Pennethorne, instead of confining himself to mere assertions, did not make such calculations as would have enabled him to prove in what respect the prices allowed were considered to be too high; such calculations could have been tested by reference to the prime cost of the materials used, and of the labour necessary for the construction of the work.

With regard to the prices allowed for the fixtures, as well as to the mode of procuring them, I refer to the Seventh Annual Report presented to Parliament by the Poor Law Commissioners (1841). I reiterate that I believe it to be capable of proof that the course pursued was the best that could have been adopted; and in respect of the prices paid for these works, Mr. Pennethorne has not advanced anything which shows that they were too high.

The workhouses of Ireland would, from Mr. Pennethorne's Report, be inferred to be costly buildings, and the Unions to be without equivalent value. It is, however, capable of proof, that they are less costly than other buildings of the country, and by far the least expensive of any public buildings erected in Great Britain or Ireland which are built with materials equally good and of the same capacity.

In support of this assertion, the annexed diagram sheet (letter K, in Appendix), showing the ground plan of three different buildings are given. Mr. Pennethorne admits that the arrangement of the houses has been generally approved (no slight admission under the circumstances), although some Guardians complain of their straggling arrangements. The contrary is, however, their chief characteristic; and it is in virtue of their compact arrangement that their superior economy may be asserted.

The three plans represent a barrack, according to the ordinary arrangements of those buildings, a lunatic asylum, and a workhouse. The barrack contains 1600 persons; the lunatic asylum, 150; the workhouse, 1600 persons. The great difference in space which they occupy is very apparent. The plan of the workhouse is shown with one half of it as it is built, the other half is arranged, like the two other buildings, in single buildings, like the English workhouses, and most other public buildings, by having that portion which is double separated and extended.

The economy of the double building is easily inferred from the arrangement shown; for three walls are substituted for four, only two being external and one internal. Staircases otherwise required are avoided, and many other advantages which could be particularized, besides possessing great advantages with regard to order and simplicity of classification.

Annexed is a Table (letter L, in Appendix) of the cost of the lunatic asylums in Ireland, representing the expenditure originally incurred for those buildings, and the price paid for the lands.

The amount of extra work contained in the cost of each of the above buildings is not known to me. The expenditure included outer boundary walls. The capacity of the buildings, and total cost, compared with the workhouses, will not be unfavourable, notwithstanding the greater expense belonging to those portions where cells are constructed. This table is not given as reflecting on any one concerned in the erection of these buildings, but solely as a table of comparative cost of public buildings, and of the price paid for the sites, which it is to be remarked are generally much more remote from the town than the workhouses are.

Also annexed is a Table (letter M, in Appendix) showing the difference in the cost per head between the English and the Irish workhouses, which are in general constructed in a similar manner.

Some English workhouses differ from the Irish in little more than being built with brick. The classification in the English workhouse is, however, less minute, and the subdivisions fewer, and the rooms are less lofty and airy; and the houses are in many respects of less costly construction than the Irish workhouses. Notwithstanding these circumstances, the cost of the English greatly exceeds that of the Irish workhouses. It may be supposed that building can be executed in Ireland at a cheaper rate than in England. On the whole, how-

4. Cost of the Buildings.

ever, it can be proved that but little difference exists, for except stone, lime, and sand, the materials for both are obtained from the same sources, and the masonry in England is frequently executed at quite as cheap a rate as in Ireland. If, however, any doubts should exist on this head, the cost of many public buildings, such as county court houses, lunatic asylums, and the buildings common to the two countries, show that the cost of those in Ireland, generally, exceeds that of similar buildings in England.

In addition to the table referred to, one instance may fairly be quoted, viz., the Greenwich new workhouse, as it is so very nearly of the same construction as three of the Irish workhouses erected for the accommodation of the same number of inmates, viz., 1200.

The three Irish workhouses of this size, are Sligo, Ballina, and Cavan, all satisfactory buildings, against the general execution of which no just complaint can be made. I select the Sligo house, being the most expensive, and one which Mr. Pennethorne has seen and reports to be an excellent building, and against the cost of which the Guardians have, I believe, preferred some complaint.

GREENWICH.

	£.	*s.*	*d.*
Purchase of land and expenses .	1,865	2	6
Forming a sewer to the river, of about 2500 feet, builder's contract and other works . . .	1,200	0	0
Contract for house	18,674	0	0
Additional works in buildings and fittings	3,664	0	0
Artesian well and 3-barrel pump.	208	11	11
Boiler and furnaces for washing .	68	5	0
Steam cooking apparatus, 8 baths, boilers, stoves and fenders . .	720	0	0
Additional works just completed for enlargement of infirmary department	1,546	0	0
	27,945	19	5

SLIGO.

	£.	*s.*	*d.*
Contract for house	9,100	0	0
Fixtures, fittings, furniture, and contingencies	3,748	9	10
Clerk of works' salary . . .	230	3	7
Solicitor's bill.	25	17	3
Advertisement for tenders . .	2	10	0
Ironmongery	107	7	3
	13,214	7	11

The value of the site, which is *rented*, has to be added to the above, for comparison.

The architect of the Greenwich workhouse has himself published the statement, and obtained credit for having erected an economical and good building, and most probably the performance of his duties has been a source of pleasure to him. Nevertheless the particulars of the expenditure show that there existed a want of drainage of the site, and that it was necessary to incur an expense beyond the contract, for the construction of an overflow drain, the building being surrounded by houses, and the formation of open manure pits would perhaps have been objectionable, or impracticable, owing to the nature of the ground. Another item shows that there was a deficiency in the supply of water, except by sinking an exceedingly deep and costly well, requiring expensive machinery. Another item shows that a considerable sum was paid for fixtures, and extra works, and the total shows a cost nearly double that of the Irish workhouse. Notwithstanding this, the building is not of greater capacity (except the increased size of the infirmary), nor is it erected with better materials, some being more costly and others less expensive than those used in the Sligo workhouse; the latter is built with solid enduring stone walls and cut-stone dressings; the former with thin brick, having perishable cement dressings. The Sligo house has also an unfailing supply of water, in a well a few feet below the surface, and the conveyed right to use an adjacent water-course if additional water should ever be required. It has also a good natural fall for the drains into a tidal water-course.

Yet with these strong contrasts between the two buildings, what is the difference in the position of the two architects? The one in England gains credit, and liberal remuneration; the other in Ireland is represented (under the authority of a commission from Her Majesty) as a person who, in the performance of official duty, has so far sacrificed the interests of the public, that it is suggested a portion of the amount expended under his directions should be deemed to have been wasted.

Whatever may be the opinion of the public with regard to Mr. Pennethorne's Report, or however incorrect it may be proved to be, there is very little doubt that his adverse conclusions will be adopted by most persons in this country, as giving them grounds for claiming exemption from repaying the loans; and if this should be the case, those who have to pay rates for any other public works, such as those executed by the Shannon Commission, the Board of Works, or other Commissions, may, on the same grounds, advance claims of exemption; and in a similar way, it might be asserted, that the large expenditure which is made under the Board of Ordnance, by whom the payments are made by measure and value at prices so closely bordering on those allowed to the workhouse contractors, is to a much greater extent an annual waste of public money; for however good and judicious the expenditure may be (and doubtless is on the whole) by the above Boards, it is only necessary that the accounts should be exposed to the exparte investigations which have been adopted with the workhouse accounts, and to issue invitations for complaints, and disappointed merchants, contractors, and clerks of works will doubtless be able to pick such holes in some of the minor details, as would with equal justice form the basis of a Report, as condemnatory as that furnished by Mr. Pennethorne in relation to the workhouses in Ireland.

Setting aside disputed questions, such as that of the ordinary fair value for the fence at

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Edenderry, and any other minor works of the kind, which under peculiar circumstances have to be paid for at higher than customary local prices (and such ever will be the case to some extent in public works), it is capable of being shown by detailed calculations, that the prices which have been generally allowed for extra works, were all carefully investigated, and may be supported by reference to the prices allowed by public Boards, and by respectable architects in Ireland; and with regard to the boilers, and fixtures of that kind, there is evidence to show that the Commissioners endeavoured in several instances to get these works done by open contract, but without deriving any advantage therefrom, and that the course pursued was, on the whole, the most eligible.

Dublin, June 4, 1844. GEO. WILKINSON.

APPENDIX.

A. 1.

CASTLEBAR GAOL.—COUNTY MAYO.

The amount of contract was 18,550*l.*, the extra works (3,000*l.*) caused by increased depths of foundations, and several other additional works, the necessity for which presented itself during the progress of the works. The contractor was allowed a large sum for the carriage of sand, a distance of three miles from the site, from the river Clydagh, which was approved of by the architect.

The grand jury, on receiving the architect's report on this additional expense, had sworn evidence to support it, and granted this additional sum of 3,000*l.* without hesitation.

This gaol was commenced in 1830, and was completed in 1834. The masonry was all of the best class, horizontal beds and vertical joints, built with black limestone, all got on the site; all done under the superintendence of a clerk of works, paid by the grand jury at two guineas a-week; and although the greatest care was taken in filling and packing the walls, the wet so penetrated, and particularly on the west and south-west aspects, after the gaol was occupied (in 1837), the grand jury contracted for having all the joints of masonry raked out one and a half inches deep, and pointed with Roman cement and a proportion of washed sand. This work was done under the direction of the county surveyor, and had the effect of making all the apartments of the gaol *very* nearly dry.

In consequence of the stench and foul air from the privies and cesspools, it was found necessary to continue the main sewer to "Salem Lake," a distance of nearly a quarter of an English mile from the site.

The well to supply this gaol was sunk by the contractor to the depth of 75 feet, all through rock, except the upper 8 or 10 feet, which consisted of brick, clay, and gravel. A pump was put down by Messrs. Mallet, of Dublin, attached to a tread-mill, by which it was worked. After some time the well became exhausted, and the grand jury entered into a contract for sinking it deeper. They sank it 35 feet deeper, and not then finding a sufficient supply of water, they sank jumper holes two inches in diameter to a considerable depth, and not finding water by these means, they tried the experiment of cutting a chamber into one of the sides of the well: they made this chamber 18 feet deep, about 6 feet high, and 4½ feet wide, by which means they got a supply of water which has supplied the gaol since.

The pump was again put down with the additional pipes, and was most satisfactory when completed.

A. 2.

The BARRACKS at CASTLEBAR, built for the accommodation of a regiment of infantry, were commenced in 1828 and finished in 1832, the contract being made by the Ordnance Department.

The masonry is of the best class, with horizontal beds and vertical joints; and although the greatest attention was paid to the execution of the work, the driving rains penetrated through all the walls having a south-west or west aspect. Eave-gutters and down-pipes were put up to the entire barracks, and the walls which showed damp had all the joints of the masonry raked out deeply and pointed with Roman cement mixed with the usual proportion of washed sand. Although all this was done some years ago, the buildings on the exposed aspects show damp inside up to this time.

The part of the barracks most affected in this way is the officers' quarters, mess-room, &c. These barracks exceeded in amount the estimate made by the Ordnance Department about 3,000*l.*, in consequence of increased depths of foundations, mostly caused by the irregularity of the levels of the site, and other unforeseen works, which were found to be absolutely necessary in the progress of the execution of the works.

These barracks are all built with a dry, grey limestone.

A. 3.

MULLINGAR GAOL, completed in 1830, is built of flat-bedded blackstone, procured from a quarry within a quarter of an English mile of the site, and near the Royal Canal.

Two large opens or cracks appeared in the walls, one in the front of No. 2 building, and the other in the rear of the same; several smaller settlements appeared all through the rear wall of the prison. The settlements in No. 2 building were caused by that part of the foundations being of a hard substance, having been a car-way. The other settlements were caused by the pressure of arches in the corridors, and particularly of the arches in the doorways, which were put in with two large arch stones and a key.

The grand jury were apprehensive that the gaol would be required to be pulled down, and they called on an eminent architect to examine the building, and in consequence of his recommendations certain remedies were adopted.

The driving rains from the south-west and west so penetrated the walls of this building, that it was ound necessary to have all the joints of the masonry on those aspects raked out from one and a hal to two inches deep, and pointed with mortar composed of roach lime, washed sand, and a portion of pounded clinkers.

The above work has been done under the architect's direction, and it is hoped that it will have the desired effect.

A. 4.

THE ROMAN CATHOLIC CHAPEL AT MULLINGAR.

This building, which was commenced in 1833, and finished (except the upper part of the tower or belfry) in 1836, is built with sound flat-bedded blackstone, obtained from "Kenny Quarry," within about four Irish miles of the site.

The walls of this chapel are three feet thick; and although the greatest care was taken in the execution of the works, the driving rains from the west and south-west so penetrated through the walls and plastering, that it was found necessary, in the summer of 1838, to have all the joints of the masonry in these aspects raked out fully one and a half inches deep, and pointed with Roman cement, and a proportion of sharp, washed sand. When this was done, the plastering inside was quite soft, but it is now nearly all bleached out and dry.

Every building in this town and neighbourhood is considered not fit to be occupied until it has been well covered on the outside with good rough cast dashing done in two coats.

(B.)

INSTRUCTIONS for the guidance of the Master of the Workhouse, with reference to the attention required to be given to the Locks, Drains, &c., as well as to the Building generally.

LOCKS, KEYS, BOLTS, &c.

The locks, keys, bolts, &c., will require frequent oiling. In the event of any key being bent or injured by falling on the ground, or otherwise, it should be perfectly rectified before being again placed in the locks, or it will alter the shape of the wards, and prevent other pass-keys from going properly through them.

When any lock is injured, or found to be defective, it should at once be taken off and repaired; and the keys should never be forced or they will become misshapen, and will, consequently, injure any other locks they may be put into. There are generally left at the building a few surplus articles of ironmongery, to be used where accidents occur to any of those originally fixed.

BOILERS.

To prevent any injury to the metal boilers, careful instructions will be necessary to those employed in the use of them, to prevent cold water being suddenly put into them when they are empty and heated.

PUMPS AND WELLS.

The pumps will require frequent attention and the different points of friction to be oiled; the covering of the well to be occasionally opened, to allow the rods and work below the surface to be oiled or otherwise attended to; the cover must be carefully re-laid to prevent injury from the water which would otherwise flow into the well from the yard.

CESSPOOLS, DRAINS.

A plan of the drains is prepared (and intended to be framed) for deposit at the building, on which is laid down the exact position and direction of the several cesspools and drains.

The large cesspools will occasionally require to be cleaned out, and they are provided with manholes for this purpose. The drains will also occasionally require cleaning, and when opened for this purpose, great care must be given in properly covering them up again.

Small cesspools, with gratings over them, are placed at the head of the several drains, in the yards, wash-house, and kitchen, and these are intended to catch any sediment that would otherwise wash into the drains and probably soon choke them—these cesspools will, therefore, require to be occasionally cleaned out, and all rubbish should be constantly removed from the gratings.

Rubbish, such as ashes, straw, or filth, should not be allowed to remain in any corner or portion of the yards, but should be removed every morning from all parts of the building, by means of barrows, to a place outside the building appropriated for a manure yard; and, during the day, all rubbish or filth that may arise should be collected and placed in barrows for removal.

The neglect of the above instructions will cause the yards to be continually in a dirty state; and by the filth being washed into the drains, will tend to derange them.

The contractor for the building being required to surface the yard for drainage only, the general finishing of the yards and roads around the building will, for some time, require the master's attention, in directing the labour of the paupers employed in wheeling, and breaking stone, in order to bring the yards eventually to a smooth, clean, and hard surface.

CHIMNEYS.

The chimneys will require to be swept periodically, and the interval should not exceed four months during the use of fires.

ROOFS.

Any disorder which may happen to the slating, lead work, &c., should be properly and immediately remedied to prevent the disorder from increasing; and it will be necessary that proper persons should be appointed, to be applied to for the repair, &c., of this work, as occasion may require.

WINDOWS.

The windows will require constant attention, and careful instructions will be necessary for all ward-masters and others to whom may be intrusted the opening and closing of the windows, that they should close them securely in order to prevent them being broken by the wind.

LIMEWASHING.

The building will be required to be whitewashed at frequent intervals, and as the paupers in the establishment may be employed therein, the master must take care that the walls are first carefully dusted; and in mixing the limewash a sufficient proportion of tallow be used to prevent its rubbing off.

Generally:—A number of minor defects will, doubtless, frequently arise, which the master will, by timely attention, be able to repair or remedy, such as the repair of the pitching in the yards, the earthen floors of the rooms, &c.; and by driving a nail or screw, or the use of a little putty, which the master can easily have at his command, the building may be kept in very efficient order, which cannot be the case if these minor matters are neglected, and any trifling and casual defects be allowed to increase.

Architect's Office, Poor Law Commission,
May, 1842.

(C.)

IRELAND.

UNION WORKHOUSE.

Additional Instructions for the Clerk of Works for the Construction of the several Drains and Tanks.

(Prepared to accompany the Plan of Drainage, on which is described the size of the Drains.)

GENERALLY.

The ground under all the drains to be well rammed, and where they come over new-made ground, the earth to have sufficient time for settlement and considerable ramming. Where gateways or roadways pass over the drains, their construction will require particular attention.

In executing all tanks, drains, &c., great attention must be given to shore up and keep the surrounding ground from falling in, and also that the filling at back of work is made very solid.

Where drains pass through a porous and loose soil, it will be proper to take the additional precaution of puddling with clay near the buildings. When openings are left through wall for drains to pass through, they should be sufficiently large to allow for any settlement of the materials while the walls are being carried up.

FALL OF DRAINS.

All drains to begin within about six inches of the surface so as to allow the greatest fall. Rain-water drains to have a fall not less than in 10 feet; all sharp angles to be avoided, so as to allow a free and easy current.

Overflow drains to have a fall of not less than in 10 feet.

Main drains to have a fall of not less than in 10 feet.

All overflow drains leading from cesspools to be kept as high in the cesspool as practicable, and to have cast-iron cross-gratings, with bars 1½ inches apart, and the ends of all main drains to have cast-iron gratings to keep out vermin, but to be constructed with frame, &c., so as to allow drains to be cleaned.

CLEANING DRAINS.

To make a provision by covering drains with large flat stones in convenient places, to allow their being cleaned out, and these should be provided at the side wall of all the buildings where drains run through the house, so as to prevent disturbance.

All drains to have a bottom formed with flags, stones, bricks, or tiles, closely jointed.

Surface channels, where formed, are to be constructed with close bedded stones and rammed.

The rain-water down stacks will require to have the shoes discharging into the drains, and consequently carried below the surface of the yards; and in all cases the materials will require to be most carefully put together where the water first discharges from the stack into the drains.

No bricks but the very best are to be used; and if there are no good ones in the neighbourhood, it is no excuse for bad ones being used; proper materials must be obtained under any circumstances, no matter how distant.

The cast-iron rain-water gutters, or eaves, will require the strongest and most secure fastenings to prevent injury from tempestuous weather, or weight of snow in lodgements. They will require to be laid to a current of not less than in 10 feet. The heads of all downstacks will want fixing with care, so as to prevent overflows, and each head to have the grating specified securely fixed.

Previous to the fixing rain-water pipes, drains, &c., all temporary surface drains, and all temporary shoots to keep the building and ground dry should be provided, and no water from the down pipes to be allowed to soak into walls or foundations of them.

The several drains to be constructed according to their size, as follows:—

Four and a half square rain-water drain to be formed with brick, flat tops and bottoms, and brick on edge sides. The joints to be set in cement, and the bottom layer of bricks to be set in mortar, or in puddled clay, and the inside of all square drains to be rendered in cement.

Observations.—Where the bricks are less in length than 8½ inches, brick flat tiles, 10 or 12 inches square, are to be used instead; or Carlow, or other approved flagging, not less than 12 inches in width. When flag is used it should be either jointed or counter-flagged.

Six-inch drains to be formed as last, but only 4½ inches high.

Nine-inch diameter circular rain-water drains to be formed with brickwork 4½ inches thick, bedded in cement, turned on a wood cylinder made for that purpose; the inside half of the drain to be rendered in cement.

OVERFLOW DRAINS.

To be built with rubble mortar walls not less than 14 inches thick. The tops and bottoms to be covered with arched stones or with flagging.

RAIN-WATER TANKS.

To be constructed with brickwork at least 9 inches thick, bedded and rendered in cement, and backed up with 18-inch rubble-mortar wall, and puddled at the back with clay, if necessary. The brickwork to be bonded to the rubble-mortar wall by bonding bricks not less than No. 4, to every superficial foot. The rain-water tank to be doomed over with 14-inch brickwork, leaving manhole (as described for cesspools in the specification), to be covered with a flag set level with surface of yards, with two strong rings let in for raising it.

In forming the rain-water tank, a curviform or inverted arched bottom will be necessary in all situations except where the excavation is a solid rock, in which case clay puddling below level floor laid with brickwork and cemented will be sufficient.

CEMENT.

All the cement used to be fresh, and of the best quality, and all to be tested and approved before being used.

SURFACING OF YARDS.

In forming the surface of yards and ground adjoining building, great attention is to be given to the fall, and the materials forming the surfacing (where any filling is required). The falls to the cesspools are not to be less than specified, but they may frequently be more with advantage to the yards where the ground allows them. The cesspools to receive the surface water of yards being placed in the point best suited to the falls of the ground.

The Clerk of the Works to note on the plan, and to send to the architect's office, Poor Law Commission Office, a correct plan and particulars of any additions or alterations made on the plan of drains, if any change should be ordered or required, in order that a correct plan of the drainage of the building may be preserved, and to mark the position of the large flat stones for cleaning drains.

[D, E, F, see annexed Plan]

(G.)

STRABANE UNION.

Letter addressed by the Strabane Board of Guardians to the Poor Law Commissioners, Dublin.	*Observations on annexed Letter.*
Strabane Union Workhouse, 26th October, 1842. GENTLEMEN, 1. WE have the honour to acknowledge the receipt of your letter of the 8th instant, calling upon us again to pay the full amount of 1450*l.* for works and improvements made in the Strabane Union workhouse.	
2. That an earlier reply was not made to your letter, arose from circumstances over which we had no control. The person whom we had employed, agreeably to the permission contained in your letter of the 4th June, to examine the accounts and the works, having been taken ill, we have, however, obtained our object by means of another person; and, from the time he has been engaged, and from his known skill, we have every reason to place the fullest confidence in his accuracy, the result being a more full conviction than we before entertained, that the accounts are not yet in such a state as to enable us conscientiously to discharge the sum you require of us.	2. The person employed by the Guardians for examining the adjusted building account was, I am informed, a local contractor, and probably not a proper person to be employed in a matter of this kind.
3. It appears by Messrs. Catcheside's bill of charges, as furnished to the Guardians by the Commissioner, that several of the items have been entirely disallowed, to the amount of 249*l.* 5*s.* 2*d.*; also that many other items have been greatly reduced in amount by your architect, which is sufficient evidence to the Guardians, as it must be to the Commissioners, that those gentlemen did not make out a fair and honest bill against the Union. It also appears that the works for which the Guardians are now called upon to pay were not executed under any contract, nor at any fixed prices, but subject to the decision of the Commissioners' architect. Under these circumstances the Guardians feel justified in asserting that it was the architect's bounden duty to have regulated Messrs. Catcheside's demands by the fair current prices of the country. That he has not done so the Guardians are fully prepared to show, and that he has likewise admitted some works which were never executed.	3. The bill in question (being the account above mentioned) was for the fixtures and some other works performed in addition to the contract for the erection of the workhouse, which, according to the agreement entered into between the Commissioners and the contractors, was to be valued by the architect for the time being to the Poor Law Commission. Contractors often include in their accounts items of charge which, according to their reading of the contract, they may consider they have a claim for as extra work. They also frequently charge prices which the architect who values the work considers more than sufficient for a fair profit on the cost of the work. The prices which have been allowed to the contractors have, however, been carefully calculated at the prime cost of the materials, and no more than a fair remunerating price has been awarded.

APPENDIX TO REPORT.

4. We shall annex a few items from the account, to show the nature of the overcharges we complain of—overcharges so heavy that we feel fully satisfied a very considerable reduction may yet be made in them, and still leave ample remuneration to the architects.

5. First,—In the article of raising platforms for the poor to sleep upon, Messrs. Catcheside charge at the rate of 1*s.* 4*d.* per square foot. Your architect allows 1*s.* 2*d.* per square foot, reducing the charge only 24*l.* 1*s.* 8*d.*; whereas, we are prepared to prove that, at 9*d.* per square foot, Messrs. C. would have had a profit of 20*s.* per square, that is, per 10 square feet; and that the sum charged should not have exceeded 117*l.* 0*s.* 6*d.*, being 71*l.* 17*s.* 4*d.* less than Messrs. C. demand, and 57*l.* 16*s.* 6*d.* less than is allowed by Mr. Wilkinson.

6. Second,—Building a fireplace in schoolmaster's room (south wing), is charged for by Messrs. C. 15*l.* 10*s.* Mr. W. allows 12*l.* 7*s.* 6*d.*, and we know that 10*l.* 10*s.* would be an ample payment.

7. An item following the above is for building angle fireplaces in nursery and schoolmistress's room (north wing), charged 19*l.* 10*s.*, and for which Mr. W. most justly strikes off 7*l.* 12*s.* 6*d.*; and we cannot withhold our surprise when, in the following items, we find that gentleman so much more liberal to Messrs. C. They charged for extra brick-work in chimneys 28*l.* 6*s.* 6*d.*, being at the rate of 11*s.* per perch. Mr. W. allows 10*s.* per perch; whereas, our valuator very properly reduces the charge to 18*l.* 13*s.* 9*d.*, being at the rate of 7*s.* 6*d.* per perch, the current price of such brick-work.

8. Third,—We are charged 159*l.* for boilers and the setting of them. We happen to know that such boilers are supplied at the rate of 7*d.* per gallon, making the cost to be 45*l.* 10*s.*; and the amount allowed by our valuator for setting them (and we have enjoined a most *liberal* allowance) is 40*l.*, the amount of them being thus 85*l.* 10*s.*, making a difference of 73*l.* 10*s.*; and we may here refer the Commissioners to our letter of the 19th January, 1841, stating that we could obtain boilers at this rate, and requesting permission to be allowed to furnish ourselves, when objections were made by your Board to the introduction of strange workmen into the building.

9. We shall now submit charges which are excessive and, beyond contradiction, unjust wages for *labour*, viz.—

	s.	*d.*	
Carpenters . . .	4	0	per day.
Masons . . .	4	0	”
Stone Cutters . .	4	0	”
Labourers . . .	1	6	”

Which sums we do not nor cannot believe to have been paid.

In many instances we know that they were not paid. The current prices are—

Carpenters. . }
Masons . . } from 2*s.* 6*d.* to 3*s.* per day.
Stone Cutters . }
Labourers, 1*s.* per day.

4. That the overcharges, as stated by the Guardians, have not been allowed, will be seen by the following statements.

5. Calculations as to the cost of the gangways to one of the dormitories, containing 216 superficial feet:—

	£	*s.*	*d.*
First cost of the 3-inch flooring plank from 16-feet deals, including carriage from Londonderry	£4	13	11
Labour in preparing the 3-inch flooring, including planing, jointing, grooving, tongueing, heading, and laying the same with spikes, whitelead, &c. . .	4	17	6½
Waste (considerable) and profit . . .	2	7	10¼
	£11	19	3¾

£11. 19*s.* 3¾*d.* divided by 216 = 1*s.* 1¼*d.*, for which 1*s.* 2*d.* per superficial foot is allowed to the contractor.

That the contractor would have a profit of 20*s.* per 10 square feet, which, I presume, means 10 feet square, or 100 superficial feet, is impossible, it being more than he now receives at the price of 1*s.* 2*d.* allowed to him.

At Londonderry a surveyor was employed to examine the account; and even there (without the cost of the carriage to Strabane), 10*d.* is allowed by him as a fair sum for the same kind of work.

The work was, however, valued in detail at Londonderry, by the architect of the Board of Works; and the price there allowed fully supported what is allowed at Strabane.

6. This charge was for providing a fireplace for a resident schoolmaster, and the price allowed is a fair price, the materials and labour in the Workhouse having been carefully investigated.

7. This is an item similar to the preceding, and has been calculated after the same rate.

The price per perch is for picked bricks in small works, and is a fair price.

8. The price allowed for the boilers is low in amount, and not more than is considered a proper sum. The Commissioners have, by public advertisement, obtained contracts for similar boilers for other workhouses, and the lowest tenders selected for the works have not been less than is allowed the contractors at Strabane workhouse.

Scotch boilers can be obtained at 7*d.* per gallon; but, in addition to this sum, the fire-grates, sleepers, doors, curbs, lids, lines, pullies, brass cocks, &c., as well as as the stone and brick-work in setting them, has to be calculated.

9. The works for which prices per day have been allowed, and some minor works that could not be satisfactorily measured, necessarily form a day-bill, and the contractor is allowed the customary profit; if he were not, he would be out of pocket, rather than be remunerated by a moderate profit for the capital he has to advance, and his establishment expenses, and loss of his own time.

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10. And the flagging of the poor-house is allowed by Mr. Wilkinson at the rate of 1*s.* in some parts, and 10*d.* in others, per foot; whereas, it was all done at 4*d.*, and the person who did it received no more; and another person is now laying flags to the Guardians at the same rate.	10. The work done for the Guardians is very different from that for which the contractor is paid, being large thick flags for particular works, and not the ordinary flagging.
11. Mr. W. also invariably allows for rubble masonry 7*s.* 6*d.* per statute perch, brick masonry 10*s.* per statute perch. Our current prices are— *s.* *d.* Rubble masonry . 5 6 per Irish perch. Brick . . . . 6 6 ,,	11. The 7*s.* 6*d.* allowed for contractor is for the Irish perch of 21 feet, and not the English, of 16½ feet, as stated by the Guardians; the brick-work is also calculated after the Irish, and not the English perch, as stated. It is from erroneous statements of this kind that differences of opinion frequently arise.
12. And to show why our masonry and brick-work may be done at these rates, we state for your information that lime delivered is only 7½*d.* per barrel; sand ditto, 6*d.* per ton. Brick to build six Irish perches, 20*s.* per 1000; stone ditto, 10*s.* per 100, of 252 cubic feet.	12. The materials cost more than is stated; neither would 1000 bricks build six Irish perches of brick-work. The stone stated to be delivered at 10*s.* for 252 cubic feet is at the rate of only 7*d.* per ton; the contractor had to pay for royalty, quarrying, and carting the stone.
13. Under these circumstances we cannot but view the charges of mortar by the hod, 6*d.*, and brick by the hod, 9*d.*, as wholly unjustifiable, and not known in the country, and refer to them to show the kind of dealing we object to in Messrs. C., and the equally objectionable reduction of Mr. Wilkinson.	13. The charge by the hods for day-work is customary, and the only correct way of accounting.

Charges for Work said not to be Executed.

1. The charges for work not executed, which have come to our notice, are door cases said to be set with spud irons and rings, and leaded and charged accordingly. The person employed by us states that they are not so set, and one door being removed to ascertain the fact, his opinion was so far borne out.	1. It is probable that the door in question may not have been set as described; but I believe that if it was not so executed, it was executed in an equally secure way, and not at less cost, there being two ways of securing the doorway frames, one by sinking, and the other by spud irons; if the door cases were not set in one of these two ways, they would not have remained standing.
2. Secondly. A window said to have been placed in the potato house is allowed by Mr. Wilkinson, while no such work appears to have been done.	2. The window has been correctly charged in the account, the work having been done.
3. Thirdly. For extra depth of joists, consequent upon the alterations of the floors into platforms and gangways, 7 by 2 is charged and allowed by Mr. Wilkinson, whereas the scantling of the joist is 6 by 2, making the difference of 11*l.* 4*s.*	3. This decided statement appears to me to have originated from an oversight, the work being done as allowed for. The joists of sleeping platforms have been increased in depth in the wings of the building, but not in the centre of the building; the charge, however, is only for the work in the wings as executed.
4. Fourthly. Sinking and checking four door sills is charged, but no such work appears to have been done. But we refrain from seeking any further instances, though we believe they may easily be found. We have adduced the foregoing items of excessive charges thereby to show a case for revision of the accounts, which is what we earnestly call for. We cannot suppose that your Board having a knowledge of any inaccuracy in the accounts, be it ever so trifling, will call upon us to discharge them, still less can we imagine that having shown such overcharges as we have done, so little noticed, or not noticed at all by your architect, you can expect that, acting conscientiously towards the rate-payers, we can assess them to the amount you require of us. We are most anxious to assure the Commissioners of our readiness to do anything in our power to carry out the duties we have undertaken, and that it would be a subject of deep regret to be brought into collision with the Board; at the same time we do feel that the course to be pursued is clearly marked out, rather to pay only such sum as is shown to be fair and honest, or to abide the steps which the Commissioners may think it right to adopt. That we have suffered most grievously by the contract with Messrs. P. and C. is made daily more and more manifest—even now while we are writing this letter, the rain is pouring into the room from the windows—it is coming down the walls in a stream from the valleys, so that the	4. Sinking the door sills. This is work which has not been done; it was ordered at a very late period to prevent driving rains from being blown under the doors, and not being executed as intended, the amount proposed to be allowed for the work was deducted from the account previously to paying the contractor his balance. It would be difficult to adjust any building account containing so many small items in a manner more free from error. I have carefully examined the whole of the account prepared by the person whom the Guardians employed, and the errors which from the Guardians' statements, would be inferred to be numerous, appear to be confined to a few differences between his measurements, and the quantities allowed the contractors, and the omission of a door-hook intended to fasten back a door, and the sills above explained. With regard to the prices allowed, as before stated, they all have been carefully calculated, and are capable of being supported by the detail calculations entered into for every one of them. The prices at which small jobbing works are done by local workmen are not the prices at which a large contractor with establishment charges can do the work with proper materials, neither could the small tradesman undertake a large building. With regard to the prices allowed by other public Boards, for public works, no unfavourable comparison can be made, neither can any public building in Ireland or in England be instanced possessing the same capacity as the Strabane

APPENDIX TO REPORT.

bedding has to be removed in three of the dormitories, while the women are employed in soaking up the water to prevent it from running through the floors, at the same time that it is falling from the great ventilator in the roof into the body of the house.

We have the honour to be, Gentlemen,
Your obedient servants,
JOHN HUMPHREYS,
WM. FENWICK,
J. R. AUCHINLECK,
Committee appointed to investigate the Accounts.

workhouses and built with equally good materials that has been erected at so low a cost. In England no workhouse of the same size has been built anywhere at so low an amount, and I nevertheless believe that it is capable of easy proof, that in many parts of England buildings of equal capacity can be erected cheaper than in Ireland when all circumstances are duly calculated.

With regard to the execution of the building, I aver it to be good, and one very creditable to the contractors. It has been surveyed by the architect of the Board of Works, and reported on by him as a satisfactory building. That water may come in through the ventilator, or any other part that may be neglected, is most likely, but, I believe, if the water has come in as stated, it is solely owing to neglecting the covers and not properly closing them.

GEO. WILKINSON,
Architect Poor Law Commission.

(H.)

DETAIL ESTIMATE made by the ARCHITECT of the POOR LAW COMMISSIONERS for a WORKHOUSE capable of accommodating 1000 PERSONS, the Plans for which were approved by the Poor Law Commissioners in 1839.

	—	Mr. Wilkinson.		Mr. Leeson.	Increase on Mr. Leeson's Prices.	Decrease on Mr. Leeson's Prices.	
	CARPENTER.						
	FLOORS, PARTITIONS, &c.		£. s. d.		£. s. d.	£. s. d.	
3875·0	1″ rebated floor to joists 7″ × 2¼″ . . . 13″ apart	4*l.* 5*s.*	164 3 9	84*s.*	..	1 18 9	. .
2500	′ rebated rough boarding against rough studs side of attics	4*d.*	41 13 4	5½*d.*	15 12 6	..	. .
5527·8	1″ deal floor as last, joists 5″ × 2¼″ on girders (girders not included here to one and two pairs)	40*s.*	110 10 0	71*s.* 6*d.*	87 0 0	..	A clerical error occurs here, the prices being carried out as shillings, instead of 4*l.*, 4*l.* 6*s.*, 4*l.* 5*s.*, and 4*l.*, the works being of the same kind as the first item in the account, which is rightly carried out.
10491·0	Ditto, joists 8″ × 2¼″	46*s.*	241 10 0	90*s.*	231 0 0	..	
1768	Ditto, joists 7″ × 2¼″	45*s.*	41 8 9	84*s.*	32 13 9	..	
1132·0	Ditto, joists 5″ × 2¼″	40*s.*	22 13 0	71*s.* 6*d.*	17 16 0		
4608	1″ rough boarding and studs between posts 4″ × 2″ champhered, and rebated joints	8*d.*	153 12 0	6*d.*	..	38 8 0	
2110	Plastered partition both sides with 1″ board	6*d.*	52 15 0	5*d.*	..	8 15 10	
1884	Brickogged partition put and plastered to Master's and Store Offices	6*d.*	47 2 0	..	..	..	
	DOORS AND FRAMES.						
No. 1	Front 2 framed door to the Master's house, containing 30 ft. spft. with solid frame 5″ × 4″	..	4 0 0	75*s.*	..	0 5 0	. .
No. 1	Fanlight over ditto	..	0 15 0	..	..	..	. .
No. 1	2″ braced and framed door to hall, 26 ft. spft. and solid frame 5″ × 4″	..	2 14 0	45*s.* 6*d.*	..	0 8 6	. .
No. 4	1¾ framed, moulded, and squared doors to Master's and to Board room, 21 ft. spft., with jamb linings and moulding round ditto	..	8 0 0	18. 8*d.*	0 0 8	..	. .
No. 1	Ditto, ditto, to W. C., 16 ft. spft.	..	0 18 0	..	..	..	. .
No. 2	2″ braced and framed strong doors and frames to refractory, 16 ft. spft.	..	3 10 0	40*s.*	0 10 0	..	. .
No. 120	1″ ledged doors, varying 20 ft. spft., with frames 4½″ × 3″	30*s.*	180 0 0	..	..	..	. .
	WINDOWS, INCLUDING GLASS.						
No. 24	Windows with solid frames 4½″ × 2½″, with mullion and transom head, with 1½″ deal fixed lights, except the upper division to hang on csotres with lines to open, glazed with picked 3rd glass and painted, size of 6 ft. × 4 ft.	3*l.* 10*s.*	84 0 0	68*s.* 6*d.*	..	1 16 0	. .
No. 55	Ditto, 5 ft. × 3′ 10″	3*l.* 3*s.*	173 5 0	55*s.*	..	22 0 0	. .
No. 61	Ditto, 4′ 6″ × 3′ 10″	3*l.*	183 0 0	50*s.*	..	30 10 0	. .
No. 34	Ditto, 3′ 3″ × 2′ 10″, no transom, one-half to open	30*s.*	51 0 0	26*s.*	..	6 16 0	. .
No. 2	Ditto, 3-light windows, with transom heads 6 ft. × 5 ft.	..	9 0 0	85*s.*	..	0 10 0	. .
No. 5	1¾″ deal ovolo sashes, single hung, deal frames, glass, &c., size of 5′ 6″ × 3 ft.	..	15 0 0	45*s.*	..	3 15 0	. .
No. 4	Ditto, 4′ 6″ × 2′ 10″	..	9 0 0	37*s.* 6*d.*	..	1 10 0	. .
No. 17	1½ deal sash lights and frames to dormer windows, size 3′ 6″ × 3′ 0″	30*s.*	25 10 0	36*s.*	5 2 0	..	. .
No. 1	Large skylight to kitchen offices	..	0 0 0	..	..	..	. .
No. 2	Large ditto to stairs	..	20 0 0	..	..	..	. .
	WOOD STAIRS.						
No. 2	Flights to 10 ft. floor 3 ft. wide, of elm or deal, 1″ treads and risers, &c.	..	8 0 0	..	8 0 0	..	. .
No. 2	Ditto to contagious wards, 8 ft. floor	..	6 0 0	..	4 0 0	..	. .
No. 2	Ditto to ditto, 10 ft.	..	6 0 0	..	10 0 0	..	. .
No. 4	Ditto to attics, 9 ft.	..	12 0 0	..	16 0 0	..	. .
No. 1	Ditto to Board room, 9 ft. 6″	..	4 0 0	..	4 0 0	..	. .

Detailed Estimate, &c.—*continued.*

	—	Mr. Wilkinson.		Mr. Leeson.	Increase on Mr. Leeson's Prices.	Decrease on Mr. Leeson's Prices.	
	CARPENTER—*continued.*						
	ROOFING.		£. s. d.		£. s. d.	£. s. d.	
11928	Roofing with 2 purlines 8″ × 6″, rafters 3″ × 2½″, ridge and plate 4½″ × 3″	55s.	327 17 0	37s.	..	104 10 6	..
	Extra to No. 17 dormer windows, allow for trimming to skylights, chimneys	2s.	1 14 0	..	..	..	..
15516	Ditto, ditto, one purline with rafters 3½″ × 2½″, and part 3″ × 2½″ in kitchen offices, Board-room, &c.	50s.	388 0 0	31s. 6d.	..	143 10 6	..
55·0	Rafters 3″ × 2″, plates, &c., as before	..	2 0 0	23s.	..	1 0 6	..
No 5	King trusses to 17 ft. span, clear of walls	3l.	15 0 0	58s. 6d.	..	0 7 6	..
796	Ceiling joists 5″ × 2½″ to Board-room building, with ¾ rough floor overdo, and 1 trap-door to ditto, and 1 common step-ladder 12 ft. long, 1 dormer	2l.	16 0 0	..	4 0 0	..	..
No 8	King trusses to roof 28 ft. clear span between the walls	7l.	56 0 0	120s.	..	8 0 0	..
No. 17	Ditto, ditto, 25 ft. clear span	6l.	102 0 0	105s.	..	12 15 0	..
No. 6	Collared principals as extra on rafters of the Infirmary	10s.	3 0 0	20s.	3 0 0	..	..
No. 3	King trusses to 17 ft. in clear	3l.	9 0 0	58s. 6d.	..	0 4 6	..
No. 10	Large Queen trusses to main roof to 30′ 8″ clear span	8l.	80 0 0	122s.	..	19 0 0	..
No. 6	Ditto, ditto, to 36′ 2″ span in clear	9l.	54 0 0	170s.	..	3 0 0	..
No 7	Posts 6″ square to low roof 10 ft. long, with plinths under ditto	10s.	3 10 0	16s.	2 2 0	..	..
4644	Ceiling joists to Infirmary 4″ × 2½″, and 3″ × 2″ to two pair rooms	2l.	97 0 0	25s.	..	36 7 6	..
1313·1	In girders, posts, &c.	4s.	262 12 0	..	..	..	..
	Bond to walls, allow lintels, templates, &c.; allow for trimming pieces to arches	..	10 0 0	..	5 0 0	..	..
	Obs. Lintels to doors and windows to be omitted, arches to be used; allow for deal linings and skirtings and fittings to privies and W. C.	..	20 0 0	..	..	10 0 0	..
	Allow for ironmongery and fastenings to woodwork	..	40 0 0	..	30 0 0	..	..
			3,174 12 10		475 16 11	456 9 1	..
	SLATING, WITH POINTING AND WHITENING INTERNALLY, &c., &c.						
1286	Countess slates, zinc nails, deal battens, &c.	40s.	250 0 0	42s. 6d.	15 12 6	..	Executed with Queen Ton slates.
	Extra labour to 17 dormers, No. 7 skylights	..	4 5 0	..	..	..	
16616	In kitchen offices, infirmary, probationary, and dead house, &c.	40s.	332 10 0	..	..	..	..
776·6	Ridge to dormer windows.	8d.	26 0 0	..	..	..	..
	Filleting and contingencies	..	10 0 0	..	..	..	..
147	Yards, plastering on walls, and whitening to Master's house.	1s.	7 7 0	8d.	..	2 9 0	..
50	Ceiling, and whitened.	1s. 6d.	3 15 0	..	..	..	..
142	Plastering on walls, Board-room, and coloured	1s. 6d.	10 13 0	1s.	..	3 11 0	..
1269	Ceiling whitened; infirmary, attics, and under spaces not occupied by floors	1s. 6d.	95 3 6	..	..	..	..
	Plastering to 17 dormers windows, and lime-whitening throughout	..	25 0 0	..	..	..	..
	Contingencies	..	10 0 0	..	..	..	..
	—		774 13 6		15 12 6	6 0 0	..
	PLUMBER.						
19	Cwt. 6 lb. lead gutters valleys, and board to ditto	2l.	38 0 0	32s.	..	7 12 0	..
	Lead work to 17 dormers, and 7 skylights	30s.	25 10 0	50s.	9 10 0	..	..
	1 Lead pump	..	5 0 0	..	..	1 10 0	..
	Guardians' water closet	..	12 0 0	..	3 0 0	..	..
	Contingencies	..	10 0 0	..	..	..	..
			90 10 0		12 10 0	9 2 0	..
	—						
	PAINTER	..	50 0 0	..	..	20 0 0	..
	—						
	SMITH.						
No 1	Wrought iron gate to entrance, 5 ft. × 9 ft.	..	5 0 0	..	4 0 0	..	..
No. 4	Ditto ditto 3′ × 9″ to the passages	..	12 0 0	..	8 0 0	..	..
No. 42	Ft. of ¾″ round iron railing, 6′ 6″ high, with No. 4 gates hung in ditto	..	20 0 0	6s.	..	7 8 0	..
No. 8	Iron columns 6″ diameter to school-room, 12 ft. long	..	40 0 0	70s.	..	12 0 0	..
	Iron railing to two large staircases of three flights each, with 3 ft. railing round well-hole 1″ × ¾″ square bars with 1¼″ half round iron capping rivetted in, and newels at the commencements.	..	40 0 0	..	..	10 0 0	..
	Ditto, ditto to two smaller staircases, two flights each	..	30 0 0	..	..	10 0 0	..
	Contingencies for iron work, bolts, straps	..	20 0 0	..	..	..	..
	—		167 0 0		12 0 0	39 8 0	..
	MASON, &c.						
17046	Ft. paving to hall, porter's room, probationary day-rooms, school-rooms, master's kitchen, wash-house, refractory, laundry, infirmary, &c.	8d.	568 4 0	6½d.	..	106 10 7	..
3910	Perches of masonry in boundary walls, chapel, and hall, infirmary, dead house, probationary, foundations, gables, &c.	7s.	1,368 10 0	6s.	..	195 10 0	..

I

Detailed Estimate, &c.—*continued.*

	—	Mr. Wilkinson.		Mr. Leeson.	Increase on Mr. Leeson's Prices.	Decrease on Mr. Leeson's Prices.	
	MASON—*continued.*		£. s. d.		£. s. d.	£. s. d.	
	Two large stone staircases of three flights each, with stone landings run with lead, size of well-hole 8 ft. wide, 17 ft. long, and 12 ft. rise of floor; two 9 ft. do. each	..	100 0 0	..	28 0 0	..	. .
	Two ditto, ditto, as last, well-hole 17 ft. × 6 ft. do. do.	..	80 0 0	..	..	35 0 0	. .
	Stone sills to No. 35 doors	..	10 0 0	..	4 0 0	..	. .
	Sinking well	..	10 0 0	..	10 0 0	..	. .
	Excavating to foundations of walls	..	30 0 0	..	..	10 0 0	. .
	Removing rubbish	..	5 0 0	..	..	..	. .
	Allow for scaffolding	..	50 0 0	..	..	25 0 0	. .
	Allow for drains	..	200 0 0	..	..	55 0 0	. .
No. 7	Fire-places with flues, in three floor buildings	..	50 0 0	..	50 0 0	..	. .
No. 13	Ditto two ditto						
No. 8	Ditto one ditto						
No. 1	Moulded chimney-piece to Board-room						
No. 1	Ditto, plain, to Master's; flues carried in stacks above roofs as shown						
No. 2	Large flue stacks in wash-house and kitchen, dressings to quoins, front door	..	22 0 0	..	8 0 0	..	. .
	—		2,493 14 0		100 0 0	427 0 7	. .
	RESULT of the CALCULATIONS, made according to the Prices at which the Buildings have been erected.						
	Carpenter	..	3,174 12 10	..	475 16 11	455 9 1	. .
	Mason	..	2,493 14 0	..	100 0 0	427 0 7	. .
	Slater	..	622 15 0	..	15 12 6	..	. .
	Plumber	..	90 10 0	..	12 10 0	0 2 0	. .
	Painter	..	50 0 0	..	..	20 0 0	. .
	Smith	..	167 0 0	..	12 0 0	39 8 0	. .
	Plasterer	..	151 18 6	..	..	6 0 0	. .
			6,750 10 4		615 19 5	950 19 8	. .
			335 0 3			615 19 5	. .
	Estimate according to the prices at which the buildings have been actually erected	..	6,415 10 1			335 0 3	

(I.)

FITTINGS referred to in the foregoing Estimate for a House for 1000 Persons.

8 tables to dining-hall 2 feet 3 inches wide by 17 feet long.
16 seats to ditto.
2 tables as last 13 feet long each.
4 forms to ditto.
1 table 12 feet long.
2 forms to ditto.
5 tables 21 feet long, as last.
10 forms to ditto.
2 stoves to hall.
2 ditto to laundry.
1 large table to board-room 20 feet long and four feet wide.
25 chairs to ditto, and clerk's office.
1 table desk to clerk's office 5 feet by 3 feet.
1 deal-framed closet to ditto.
30 feet of hat-pegs to board-room.
150 feet of hat-rail to paupers.
1 best fire grate, fender, and fire irons to the board-room.
1 fire grate to clerk's office and master's house.
25 common grates, fenders, and fire irons.
40 feet of deal dresser, with drawers, &c., to store-rooms.
1 large bin in two divisions.
250 feet of 11 deal shelves.
1 table 9 feet long by 3 feet wide to store room.
2 tables 12 feet long, each 2 feet fi inches wide to paupers' day-room.
6 circular three-leg tables 2 feet 6 inches diameter.
1 framed enclosure to dining-hall, folding in five divisions of 1½ deal square framed. being in two lengths of 25 feet each and 10 feet high.
114 feet long by 4 feet wide proper ironing-board to laundry.
45 feet deal proper washing trays in divisions on stands.
1 large rinsing tub.
2 large folding clothes horses.
25 feet of table 4 feet wide to mangle-room.
1 6-feet fi-inch mangle.

2 large 60 gallon coppers, with brick-work, &c., complete.
1 large table in kitchen 16 feet long by 4 feet wide of 2-inch elm top.
30 feet of fixed table, dressers in ditto 2 feet 6 inches wide.
1 large four division steam cooking apparatus.
22 feet of dresser, sink in scullery.
1 mill complete, with cranks, enclosures, steps, &c., complete.
5 large stone sinks for washing only, 8 feet long.
1 deal-framed enclosure for reading-desk in chapel and seats to ditto.
150 feet run of deal desk table, with 300 feet of forms for the school-rooms.

[K, see annexed Plan.]

NUMBER of the several Beds, as provided in the Design for the Irish Union Workhouses, for 1000 Paupers.

—	Number of Single Beds.	Men.	Number of Single Beds.	Number of Double Beds.	Women.	Number of Double Beds.	Children.	Total Number of Beds.	Total Number of Paupers.
Attic	..	..	153	..	153	..	..	153	153
Two-pair . . .	81	81	81	..	81	103	206	265	368
One-pair . . .	81	81	61	20	101	86	172	248	354
Infirmary . . .	36	36	36	..	36	..	..	72	72
Ground Floor . .	28	28	28	..	28	..	..	56	56
Total . . .	226	226	359	20	399	189	378	794	1,003

NOTE.—Three feet 8 inches double beds for women; beds 6 feet 3 inches long for able and infirm men; beds 6 feet 2 inches for women; beds 3 feet 6 inches wide and 5 feet long for children; single beds 2 feet 3 inches each making 4 feet 6 inches as double beds, arranged side by side.

BUILDING ESTIMATE.

Irish Union Workhouse for 1000 *Paupers, according to the detail Quantities and Prices.*

	£. s. d.	£. s. d.
Carpenter	3,174 12 10	
Mason	2,493 14 0	
Slater	622 15 0	
Plumber	90 10 0	
Painter	50 0 0	
Smith	167 0 0	
Plasterer	151 18 6	
		6,750 10 4
Contingencies		250 0 0
Fittings, exclusive of Bedsteads . .		500 0 0
		£7,500 10 4

At the prices of the estimate and allowance made, 8000*l.* will be a fair estimate for 1000 paupers, including bedsteads.

L.

TABLE showing the Cost of Pauper Lunatic Asylums erected in Ireland.

Name of the District Asylum.	Year Opened.	Number of Patients intended for.	Land Purchased.	Price per Acre.	Amount of Purchase Money.	Amount of Building.	Furniture, Bedding, and other Contingencies.	Total.
			English. A. R. P.	English. £. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Armagh . .	1825	104	8 0 23	81 3 11	1,090 5 7	18,094 4 8½	1,715 14 2	20,900 4 5½
Limerick . .	1827	150	11 3 12	259 6 9	3,840 2 10½	24,120 0 6	1,596 8 1	29,856 11 5½
Belfast. . .	1829	104	21 1 11	77 1 11	2,070 0 0	21,838 7 4	1,411 5 8	25,319 13 0
Derry . . .	1829	104	12 3 2	76 4 9	752 18 5	23,507 9 10	1,417 14 1	25,678 2 4
Carlow . .	1831	104	15 0 39	152 2 6	2,289 0 3	18,474 5 9	1,789 4 4	22,552 10 4
Maryborough .	1833	104	22 2 17	50 8 4	1,140 8 0	21,518 13 6	1,513 1 0	24,172 2 6
Connaught .	1833	150	22 2 28	69 16 2½	1,582 19 5	23,581 9 10	1,956 15 3	27,130 4 6
Waterford .	1835	100	14 2 12	85 15 0	1,262 14 10	14,313 1 10	1,311 15 11	16,887 12 7
Clonmel . .	1835	60	11 1 14	119 15 9	1,347 16 9	14,019 6 1	1,220 16 5	16,587 19 3
Total Number . .		980				Total Expenditure . . .		209,085 0 4¾

APPENDIX TO REPORT.

M.

TABLE showing the Comparative Cost of the Workhouses erected in England and Ireland respectively.*

Number of Persons for whom Accommodation is provided.	Number of Workhouses Built.	Cost of Workhouses. Highest.	Cost of Workhouses. Lowest.		Average Cost of each Workhouse.			Cost per Head for the Number accommodated.		
		£.	£.	s.	£	s.	d.	£.	s.	d.
ENGLAND.										
1,200	1	. .	. .		27,945	19	5	23	5	$9\frac{233}{1200}$
1,000	2	22,700	12,000	0	17,350	0	0	17	7	0
800	1	. .	. .		15,000	0	0	18	15	0
600	2	12,100	8,842	10	10,471	5	0	17	9	$0\frac{1}{2}$
500	14	15,050	5,000	0	9,082	0	$5\frac{1}{2}$	18	3	$3\frac{1}{4}\frac{888}{875}$
400	24	11,585	5,060	0	8,028	10	$5\frac{1}{4}$	20	1	5
300	103	10,800	4,450	0	7,060	10	$3\frac{1}{4}$	23	10	$8\frac{1}{4}\frac{1661}{2575}$
200	64	10,000	2,258	0†	4,886	7	$4\frac{3}{4}$	24	7	$0\frac{3}{4}\frac{371}{640}$
IRELAND.										
1,200	3	13,400	12,000	0	12,883	6	8	10	14	$8\frac{1}{2}\frac{2}{3}$
1,000	7	12,500	9,950	0	11,385	14	$3\frac{1}{4}\frac{5}{7}$	11	7	$8\frac{1}{2}\frac{2}{7}$
800	20	10,800	8,400	0	9,397	10	0	11	14	$11\frac{1}{4}$
600	18	9,600	6,900	0	8,052	15	$6\frac{1}{2}\frac{2}{5}$	13	8	$5\frac{1}{3}$
500	15	8,750	6,400	0	7,456	13	4	14	8	$3\frac{1}{5}$
400	7	7,800	6,700	0	7,028	11	5	17	1	$1\frac{1}{4}\frac{3}{7}$
300	3	6,300	4,800	0	5,600	0	0	18	13	4
200	2	3,600	3,450	0	3,525	0	0	17	12	6

* This comparison extends only to such workhouses in Ireland as have been paid for, as it is impracticable to make it extend to those for which the accounts are unsettled.

† This sum, taken from the Commissioners' Report, does not, it is supposed, include the total outlay for Penshurst Workhouse.

NOTE.—The cost per head has been ascertained by dividing the total amount of the loans obtained by the number to be accommodated. The comparison by this course is rendered the more advantageous to the English workhouses, because it is considered that the loans obtained for them have fallen short of the amount expended on them, and that to a considerable extent in many instances.

No. II.

Mr. GULSON *and* Mr. POWER'S OBSERVATIONS, *with* APPENDIX.

APPENDIX
TO
REPORT.

No. II.
Mr. Gulson and Mr. Power's Observations, with Appendix.

GENTLEMEN, *Poor Law Commission Office, Dublin, 3rd June,* 1844.

With reference to your letter of the 6th ultimo on the subject of Mr. Pennethorne's Report on the Irish Workhouses, we forward, at Mr. Wilkinson's request, the explanations which he has prepared in answer to that Report.

In pursuance of your instructions, we have taken steps to ascertain whether the documents now in this office contain statements calculated to clear up misapprehension or to elucidate facts, in reference to the contents of Mr Pennethorne's Report; and we now proceed to offer the following observations, in addition to those which we have already addressed to your Board on this subject.

In pages 11 to 23 of his Report, and again in pages 84, 85, and 86, Mr Pennethorne sets forth certain complaints, which, he says, were made by the Guardians of Unions against the Poor Law Commissioners, and which are, in effect, as follows, *viz*:—

I. That in issuing their orders to the Guardians of Unions to borrow the sums necessary to pay for the erection of the workhouses, the Commissioners *deceived* the Guardians; inasmuch, as the sums directed to be borrowed in the orders for the first loans included no provision for certain extra works, which the Commissioners must have known would arise; and, therefore, the estimates upon which the first orders to borrow were founded, were such as they knew could not be realised.

II. That having made no provision for such extra works in the contracts with the builders, the Commissioners incurred thereby much useless and unnecessary expense in the withdrawal of such works from public competition; and that in the adjustment of the contractors' bills for such extra works, they permitted their architect, by the allowance of extravagant prices, improper modes of measurement, and general mismanagement of that department of his business, to put the Unions to much expense which ought to have been avoided.

The Report which Mr. Pennethorne has made in reference to each of these two classes of complaints is, upon the whole, very unfavourable to the Commissioners; and the charges, which are most serious in themselves, derive additional importance from the fact that they are made by Mr. Pennethorne the ground-work of a proposition, that some portion of the sums legally charged or chargeable on the poor rates of the several Unions should be remitted, in consideration of the alleged deceptive character of the orders and proceedings of the Commissioners, and of the supposed uselessnes of a portion of the expenditure incurred.

We have deemed it our duty, therefore, closely to examine the official papers upon which these charges purport to be founded, and by a comparison thereof with the uses to which they have been turned by Mr. Pennethorne, and with the results which he has derived from them, to see how far these latter are consistent with a fair and reasonable construction of the contents of the papers.

The papers in question are:—

1. The orders of the Commissioners directing the Guardians to borrow the sums required.
2. The estimates on which the orders to borrow the first loans were framed.
3. The forms of contract and specification for the building of the houses.
4. The contractors' extra bills.

Before, however, we proceed to examine these papers, it is necessary to advert to the alternative character of the proposition put forward by Mr Pennethorne as the result of his labours, inasmuch as it bears most materially upon the distinct and separate nature of the two charges in question.

In pages 21-22 he says, that—

> "If they (the Guardians) should be considered entitled to pecuniary relief, the question would arise as to whether, under the terms of the first *orders to borrow*, they should be allowed the full amount of the second loans (say 125,000*l*.), or only such sum as may have been expended without advantage to the Unions, and which I have estimated at 50,000*l*."

Again, he says, in page 85:—

> "The several Boards of Guardians are now looking for redress in regard to the entire of this sum (*viz.* 125,000*l*.), founding their expectations on the terms of the first 'Order to borrow,' sent to them by the Poor Law Commissioners, and on the compact thereby virtually entered into with them. It is quite certain that from the terms of such order they were fully justified in expecting to have for the sum borrowed a good and substantial house, fit in every respect to receive paupers; but the Unions have derived advantage from the outlay of some portion of this money; and though it is impossible to ascertain, or to calculate the proportions, I am of opinion that about 75,000*l*. thereof may have been expended for the benefit of the Union, and that abuut 50,000*l*. may have been uselessly laid out."

The sum of 125,000*l*. is Mr. Pennethorne's estimate of the total amount of the second loans, and if that sum be remitted, the ground assigned for that course by Mr Pennethorne, is the deceptive character of the orders of the Commissioners to borrow the first loans, and this sum, therefore, has especial reference to charge No. I.

APPENDIX TO REPORT.

No. II.
Mr. Gulson and Mr. Power's Observations, with Appendix.
No. I.

If the sum of 50,000*l.* be remitted, it will be so because, in Mr. Pennethorne's judgment, only 75,000*l.* of the 125,000*l.* (the amount of the second loans), has been usefully or beneficially expended. This sum, therefore, is to be considered in connexion with charge No. II.

We now proceed to an examination of the papers in reference to charge No. I., *viz.*, the alleged deceptive character of the order to borrow the first loan, and the corresponding alternative branch of the proposition to remit 125,000*l.*

In the first place, we attach to this Report a copy of the form of order to borrow the first loan; and we take occasion to observe that the passage placed under inverted commas by Mr. Pennethorne at page 11 of this Report, is not an extract or quotation from that order, but an unconnected series of words contained in it.

That order is framed under the 35th Section of the Irish Poor Relief Act, which empowers the Poor Law Commissioners to direct the Guardians of a Union to raise or borrow, and charge upon the poor rates the sums expended by the Commissioners in the building of the workhouse. There is nothing in that section or in any other part of the statute which at all tends to the supposition that the Poor Law Commissioners are to raise the whole amount which may be required by them in one order. A different course would rather appear to be contemplated by the Act; for there is no provision made therein for the appropriation of any balance of a loan which might be raised and which might yield a surplus *over* and above the actual expense incurred.

By far the most natural and expedient course, therefore, considering the uncertainty attendant on building operations was, to raise the entire sum required by two loans; the first to be raised on an estimate providing the chief part of the amount likely to be wanted, and the second to be raised, not on an estimate, but on a liquidated statement of the balance remaining to be provided for.

Mr. Pennethorne considers, however, that the terms used in the order for the first loan, amount to a "virtual compact" on the part of the Commissioners with the Guardians, from which the latter were "fully justified in expecting to have for the sum borrowed, a good and "substantial house, fit in every respect to receive paupers."

The paragraph of the order upon which he is presumed to rest this opinion, but which he has not cited in full, is the following:—

> "And whereas *it has been represented to us* that the cost of erecting, according to the plans aforesaid, such portion of the said workhouse as we have determined, in the first instance, to complete, "and of the fitting and furnishing the same, and of providing utensils, instruments, and machinery "for setting the poor to work therein, together with the sum required for the purchase of the said "land, will amount to the sum of £ sterling, *or thereabouts.*

The order in which these terms are used certainly purports to specify the amount "or thereabouts," of the sum which it has been estimated will be sufficient to defray the expense of the building contemplated; but when the uncertainty attendant on all building operations, whether for public or private purposes, is taken into account, can it fairly be said that the Commissioners have deceived the Guardians because the sum ultimately expended is found to exceed the sum named in the first order?

It is not, however, upon the terms of this order alone that Mr. Pennethorne rests the proof of this most serious charge. He states distinctly that the Commissioners omitted from the estimate on which the amount of the first loan was founded, *all* provision for certain extra charges which, he is "almost persuaded," they must have known would arise. If this were true, the terms of the order above cited would certainly be calculated to mislead, inasmuch as the sum named therein would be estimated upon data known to be defective. This, therefore, is the gravest part of the charge now under consideration.

Mr. Pennethorne, in reference to this charge, suggests a point in favour of the Commissioners, which is a manifestly untenable one; namely, that they might not be conscious when they issued their orders that the extra charges for which he alleges they omitted all provision in their estimate, would arise.

The Commissioners must have been well aware that in every case extra charges would arise not provided for in the sum stipulated and agreed for with the contractor whose tender was accepted. It was almost impossible, using one general form of specification, that extra works should not arise. This suggestion, therefore, it is necessary to renounce as being inconsistent with the nature of the case.

The single question then, in reference to this charge, is this; Did the Commissioners omit in the estimates for the first loans to make provision for extra works?

Mr. Pennethorne asserts that they did. We think that the papers which he had before him show, beyond all doubt, that the Commissioners did not omit to make provision for extra works in the estimates.

Take for example the case of Belfast, the first contract entered into, and bearing date 7th June, 1839, and the Union which stands first in Mr. Pennethorne's own Reports and Tables. The following is the "Estimate for the Loan" and the "Summary of Expenditure" which Mr. Pennethorne had before him in the Parliamentary Return, which he adverts to:—

Belfast Union.

Estimate for Loan.	£.	s.	d.	Summary of Expenditure.				£.	s.	d.
Estimated Cost of Site	2,131	0	0	Site of Workhouse:—						
Building Contract	7,000	0	0	Purchase Money	£2,130	12	4			
Estimate for Fittings, &c.	1,000	0	0	Rent	57	4	4			
Contingencies	1,869	0	0					2,187	16	8
				Workhouse:—						
Total Loan	12,000	0	0	Amount of Contract	7,000	0	0			
Interest which accrued thereon	277	1	1	Account for additional Works, not included therein	2,707	3	5			
								9,707	3	5
				Ironmongery				94	6	9
				Clerk of the Works' Salary, &c.				204	19	8
				Minor Expenses				58	5	4
				Total Expenditure				12,252	11	10
				Balance in hand				24	9	3
Total Amount realized	12,277	1	1	Total Amount realized				12,277	1	1

An enlargement of a portion of the workhouse, proposed by the Guardians, has since been under consideration; the amount that may be required has not yet been ascertained.

The first loan, then, for the first workhouse built by the Commissioners covered the entire expenditure contemplated by them, and left a balance in hand of 24*l.* 9*s.* 3*d.*

In this case, therefore, there must have been a sufficient provision made for the extra works which arose; and it will be seen that the estimate under the head of "contingencies" alone was 1,869*l.* To this amount may fairly be added the interest which accrued upon the first loan. It was certain in framing the estimates, that some interest would arise on the Exchequer Bills, and although the amount was then uncertain, whatever amount of interest did actually arise, may be fairly deemed part of the estimate for "contingencies."

In this case a second loan has been raised, not to pay for extra works unprovided for by the Commissioners in the estimate for the first loan, but "to provide for an enlargement of a portion "of the workhouse proposed by the Guardians." This enlargement took place at a period long subsequent to the opening of the workhouse, and after the contractor's account had been paid.

We will now take another case, set forth in Mr. Pennethorne's own special Reports and Tables, (*viz.*, that of Wexford,) with the details of which, therefore, he must be well acquainted. In this case the contract was made on the 26th December, 1840,—a year and a half later than that of Belfast.

The "Estimate for the Loan" and the "Summary of Expenditure" which Mr Pennethorne had before him in this case, are as follows:—

Wexford Union.

Estimate for Loan.	£.	s.	d.	Summary of Expenditure.	£.	s.	d.
Building Contract	5,780	0	0	Site of Workhouse:—			
Estimate for Fittings, &c.	600	0	0	Rent	88	4	0
Contingencies.	520	0	0	Workhouse:—			
Total Loan	6,900	0	0	Paid Building Contractor, under his contract, and for additional Works not included therein.	6,400	0	0
Interest which accrued thereon	78	9	7	Ironmongery	76	11	3
				Clerk of the Works' Salary, &c.	163	7	8
				Minor Expenses	19	19	5
				Total Expenditure	6,748	2	4
				Balance in hand	230	7	3
Total Amount realized	6,978	9	7	Total Amount realized	6,978	9	7

Building accounts not yet closed.

In the case of Wexford Union, then, it appears that the estimate for the first loan not only provided for the entire expenditure, but left a balance in hand. The balance at the time the Parliamentary Return was made, was 230*l.*; but the account was not then closed, as stated at the foot of the Return. Since the date of the Return, further expenditure from the Wexford Loan has taken place, but there is still a balance in hand of 100*l.* 11*s.* 9*d.*, and the account is now closed.

In the Wexford Union, therefore, no second loan was required; and in Mr. Pennethorne's Tables XII. and XIII., we find the following further examples set forth as Unions in which no second loan has been required, and in each of which, nevertheless, considerable sums have been paid for extra works, *viz*:—

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	Contract was Signed.
Ballina	16th October, 1840.
Ballyshannon	1st October, 1841.
Cavan	5th January, 1841.
Ennis	14th March, 1840.
Gortin	3rd October, 1840.
Granard	4th November, 1840.
Kilkenny	13th April, 1840.
Loughrea	26th November, 1839.
Navan	30th July, 1840.
Newtown Limavady . .	18th June, 1840.
Westport	29th October, 1840.

Mr. Pennethorne's Table XIII. does not contain all the cases in which the first loan has been found sufficient, and no second loan required. Still with these acknowledged cases before him, it seems very surprising that Mr. Pennethorne should make the assertion which is found in page 12 of his Report in these words:—

" *In every case the building contract has been exceeded to a considerable amount, and no provision* " *whatever was made to meet extra works.*"

All that Mr. Pennethorne states in explanation of the ground on which this assertion is made, will be found in the following paragraph at pages 11 and 12 of his Report.

" The estimates for each Union, upon which the above order to borrow was founded, are set forth " in a Return ordered by the House of Commons to be printed 23rd May, 1843, and are all in the " same form, *viz.*—

	£.	s.	d.
" Estimated cost of site . . .			
" Building contract			
" Estimates for fittings, &c. . .			
" Contingencies			

" The above estimates, as regards the site, the fittings, and the contingencies, (by which I under- " stand clerk of works' salary, insurance, printing, law expenses, ironmongery, interest on purchase " money of site, compensation to contractor on change of site, &c.,) *were almost always realized*; but " in every case the building contract has been exceeded to a considerable amount, and *no provision* " *whatever was made to meet extra works.*"

The foundation, then, on which Mr. Pennethorne rests the charge of " deception" and the project for remitting 125,000*l.*, is the construction which he has thought proper to place on the word "contingencies," as used in the form of estimate, which he construes to exclude all provision for extra works, although that construction is palpably at variance with a considerable number of instances set forth in detail in his own Report, in which the estimate has exceeded the actual expenditure, and in which, therefore, ample provision is shown to have been made to meet the extra works.

To the instances contained in Mr. Pennethorne's Report, the following may be added, which might not be known to him, *viz.*; Antrim, Bantry, Castlerea, Dunfanaghy, Ennistymon and Fermoy.

The entire number of cases, therefore, in which no second loan has been necessary, is 18 out of 116 Unions. The accounts of 14 Unions remain as yet uncertified.

There is a numerous class of Unions in which, although a second loan was borrowed, the balance which remained unprovided for in the estimate for the first loan was not considerable in proportion to the total cost of erecting the workhouse. The extra works which occurred in these cases were paid for to a great extent from the first loan; and in each of these Unions, therefore, it is beyond question that considerable provision, although perhaps not a sufficient one, was made for extra works, in the estimates for the first loans.

The following Table affords 12 examples of such cases:—

UNION.	Total Cost.			First Loan and Interest thereon.			Balance unprovided for.			Second Loan.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
Athy	6,940	19	8	6,781	1	6	145	13	4	300	0	0
Ballycastle . . .	5,705	12	2	5,398	7	0	59	5	9	400	0	0
Ballymoney . .	9,318	5	5	8,621	5	6	7	18	2	700	0	0
Castlebar . .	8,152	7	1	8,018	18	2	19	12	7	150	0	0
Dunmanway .	6,790	5	5	6,571	9	10	128	10	11	250	0	0
Galway . . .	12,477	6	9	11,436	14	0	401	15	2	1,200	0	0
Kenmare . .	6,566	5	6	6,391	16	6	196	5	6	250	0	0
New Ross . .	9,601	2	9	9,368	9	1	143	2	6	400	0	0
Roscommon . .	9,414	1	2	9,168	19	5	187	6	10	350	0	0
Roscrea . . .	9,432	4	8	8,688	0	5	143	10	9	800	0	0
Thurles . . .	8,451	10	2	8,158	5	6	235	1	4	450	0	0
Tralee . . .	10,368	16	11	10,281	8	4	218	2	8	250	0	0

The amount of the second loan frequently exceeds the balance left unprovided for by the first loan; and this requires explanation. Improvements and additions not contemplated in the original plans or estimates, and forming no part of the agreement with the contractor, and in most instances not even executed by him, have occasionally been desired by the Guardians, and made by them; and an estimate for such expenditure has sometimes been included in the

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estimate for the second loans at the request of the guardians. The amount, therefore, of the second loans, frequently exceeds the amount of extra works left unprovided for by the first loan, and the two things are by no means identical, as Mr. Pennethorne appears to have supposed.

In his Table No. IX., Mr. Pennethorne has minutely examined and abstracted the extra bills of 42 workhouses, and he states, at page 12 of his Report, that "the amount of the con-"tract for building the same 42 workhouses, was 280,606*l*. 14*s*., and the cost of extra works "done in addition thereto has been 53,020*l*. 0*s*. 8*d*., being about 19 per cent. on the contracts."

That these 42 Unions exceed in the amount of their extra bills, the average of the Unions, is seen from another part of Mr. Pennethorne's Report, at page 20, where he estimates the total amount of extra bills for the 130 Unions, at 225,000*l*.; the amount for the 42 Unions examined being 85,703*l*.

Now the total amount of the contracts for the 130 Unions, is 814,257*l*. 11*s*. 3*d*., and the total amount of the same for the 42 Unions examined, is 280,606*l*. 14*s*.

The 42 examples, therefore, selected by Mr. Pennethorne, exhibit extra bills to the amount of 30½ per cent.; while the extra bills of the entire 130, are only 27½ per cent.

In the sum of 53,120*l*. 0*s*. 8*d*., which Mr. Pennethorne states to be the cost of extra works in the 42 Unions examined by him, he includes the item of "gangways". Wherever this item appears in extra works, it is most certain that provision was made for bedsteads, under the head of fittings, &c., to a much larger amount than the cost of the gangways, which were a most economical substitute for bedsteads. In inquiring, therefore, as we propose to do, what provision was actually made in the estimates of each of these 42 Unions for extra works, we are entitled to deduct the cost of the gangways from the extra works, as having been clearly covered by the estimate for bedsteads, under the head of "fittings," &c.—[*See* printed statement of particulars of fittings, &c., attached to this Report.] No. IV.

The tanks, cisterns, pipes, &c., for the rain-water, are also included in the printed particulars of fittings, and must be considered as having been covered by that estimate.

The "painting of the doors" and "lettering" forms another item which must be considered as provided for in the estimate for fittings, &c. It is included, in fact, in the printed particulars for fittings. On the same ground also, the "partition in the dining halls" is deducted from "extra works."

Omitting these items we make the total cost of the extra works of the 42 Unions, examined by Mr. Pennethorne, amount to 45,504*l*. 8*s*. 7*d*.

It now remains for us to show how much of this latter sum was provided for in the estimates for the 42 Unions, under the head of "contingencies."

Mr. Pennethorne construes "contingencies" to exclude "extra works," upon what grounds we are unable to conjecture; but he would have been informed by the architect, in answer to any inquiry on this important point, that *in not one Union in Ireland was the estimate for the first loan framed without including therein a considerable sum to make provision for extra works under the head of "contingencies."*

That the provision so made was insufficient in many Unions, is quite clear; it is at the same time important to inquire what the deficiency actually was, in reference to the statement that "no provision was made."

Mr. Pennethorne has stated what he understands by the word "contingencies," and among the items which he enumerates as coming under that head, he includes "ironmongery." This would appear more properly to belong to the head of fittings, &c., and we believe it to have been provided for under that head.

With the exception of the item of "ironmongery," therefore, we shall set forth the actual cost of the items Mr. Pennethorne considers referable to the estimate for "contingencies," and deducting the amount from the amount of that estimate, the difference, together with the amount of interest accruing on the loan, will give the amount which proved available for extra works. By this means we shall clearly see whether the amount provided for extra works was insufficient, and if so, to what extent it proved deficient in each case.—*See* Table, p. 68.

In these 42 Unions, therefore, the cost of extra works (excluding gangways, &c.) was 45,504*l*. 8*s*. 7*d*.; the amount available for extra works from the estimates for the first loan 17,267*l*. 18*s*.; and the actual total deficiency in the estimates, 28,232*l*. 10*s*. 7*d*.

As regards the Unions, therefore, the accounts of which were minutely examined by Mr. Pennethorne, this result is much at variance with his statement that "no provision whatever was made to meet extra works;" still more inapplicable is that statement to the generality of the Unions, the extra bills of the whole of which bear a less ratio (as we have already seen) to the contracts, than those of the 42 Unions examined.

This state of facts is not very clearly represented by Mr. Pennethorne at page 20 of his Report, where he says "that the cost of these extra bills beyond the provision in the first loan "have been met to some extent by the interest which accrued on the first loan, also *perhaps* a "*small saving* on '*contingencies*.'"

At page 21 of this Report Mr. Pennethorne says—

> "Various Boards of Guardians have strongly represented to me that they are expecting redress "for the increased expenditure which has been incurred; this they sometimes confuse with the full "cost of the extra bills, but it is not more than the amount of the second loans which, for the 130 "Unions, I have estimated at 125,000*l*." * * * * *

As the accounts really stand, it seems to us that the view taken of this subject by the Guardians, is much clearer, and less confused, than that taken by Mr. Pennethorne.

The Guardians (he says) "claim redress in respect of the full cost of the extra bills;" and having regard to the reflections cast on the Commissioners, and their architect, by the complaints of the Guardians, and the Reports of Mr. Pennethorne thereon, that claim is sufficiently intelligible; and as the opinions expressed on the subject of extra bills by Mr. Pennethorne, *Table of 42 Unions.*

UNIONS.	Total Cost.	Estimate for Contingencies.	Actual Cost thereof, exclusive of Extra Works.	Amount available for Extra Works.	Interest on First Loan.	Total Amount available for Extra Works.	Cost of Extra Works, including Gangways, &c.	Actual Deficiency in the provision made for Extra Works.	Surplus in the provision made for Extra Works.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Belfast . . .	13,712 1 1	1,569 0 0	283 4 11	1,585 15 1	277 1 1	1,862 16 2	1,150 1 6½	..	712 14 7½
Londonderry . .	9,782 16 10	395 0 0	245 17 8	149 9 4	62 7 2	211 9 6	653 18 4	422 8 10	..
Dunshaughlin. .	6,816 6 4	412 0 0	218 1 1	193 18 11	71 19 0	265 17 11	519 14 4½	252 16 5½	..
Balrothery. . .	6,975 0 7	405 0 0	194 0 0	211 0 0	33 19 11	244 19 11	803 16 8½	558 16 9½	..
Edenderry. . .	7,930 6 5	510 0 0	285 15 5	224 4 7	71 7 3	295 11 10	900 14 9	605 2 11	..
Castlederg. . .	3,465 13 5	284 0 0	169 6 1	114 13 11	15 10 9	130 4 8	419 14 1	289 0 5	..
Limerick . . .	15,523 9 11	1,230 0 0	281 2 1	948 17 11	104 4 6	1,053 2 5	2,219 8 3½	1,166 5 10½	..
Ballinasloe . .	10,729 15 9	1,000 0 0	313 0 4	680 19 8	132 12 2	819 11 10	1,217 0 7	397 8 9	..
Clogheen . . .	7,260 8 6	470 0 0	304 10 10	165 9 2	139 8 9	304 17 11	841 3 0	536 5 1	..
Armagh . . .	10,068 12 4	553 7 9½	349 18 0	203 9 9½	107 6 7	310 16 4½	1,994 18 7	1,684 2 2½	..
Rathkeale. . .	9,628 8 0	304 0 0	274 2 10	29 17 2	62 3 2	92 0 4	780 9 10½	688 9 6½	..
Strabane . . .	9,811 10 3	615 0 0	346 15 8	268 4 4	64 10 9	332 14 6	1,343 0 3½	1,010 5 9½	..
Lismore . . .	7,743 15 0	450 0 0	329 3 8	120 10 4	68 5 5	189 1 9	878 11 0½	689 9 3½	..
Dungarvan . .	10,027 15 8	550 0 0	337 2 5	212 17 7	55 4 3	268 1 10	1,374 6 2	1,106 4 4	..
Trim	8,807 17 6	550 0 0	305 12 5	244 7 7	70 17 0	315 4 7	1,154 0 2	838 15 7	..
Newry	9,834 5 3	794 0 0	327 2 6	466 17 6	92 15 7	559 13 1	1,976 0 0	1,416 7 8	..
Sligo	13,356 7 11	700 0 0	324 5 10	375 14 2	133 12 8	509 6 10	1,972 16 4½	1,463 9 6½	..
Omagh . . .	9,091 3 1	543 0 0	217 2 4	325 17 8	76 10 5	402 8 1	996 16 6½	594 8 5½	..
Cashel. . . .	7,789 3 0	500 0 0	275 2 1	224 17 11	83 17 7	308 15 6	834 15 2½	525 19 [illegible]	..
Kilkeel . . .	6,387 0 0	473 5 0	261 3 4	212 1 8	86 0 6	298 8 2	548 15 3½	249 7 1½	..
Carrick-on-Suir .	7,319 9 1½	532 0 0	311 19 3	220 0 9	65 13 11	285 14 8	902 6 6½	616 11 10½	..
Boyle	9,370 4 2	714 6 0	251 2 11	463 8 1	93 19 0	557 2 1	1,107 17 5	550 15 4	..
Drogheda . . .	9,927 7 11	650 0 0	267 19 0½	382 0 11½	77 14 7	459 15 6½	1,831 17 8	1,372 2 1½	..
Carrick-on-Shannon	9,609 3 7	550 0 0	325 19 9	224 0 3	110 13 7	343 13 10	971 17 8	628 3 10	..
Nenagh . . .	10,494 5 2	580 0 0	330 3 6½	249 16 5½	97 5 8	347 2 1½	635 7 3	288 5 1½	..
Dundalk . . .	9,181 16 3	535 0 0	307 1 5	227 18 7	82 1 1	309 19 8	1,202 5 1	892 5 5	..
Scariff	7,787 15 6½	500 0 0	274 9 3½	225 10 8½	81 7 10	306 18 6½	960 5 5	653 6 10½	..
Cork	21,088 10 9	1,260 0 0	480 16 9	779 8 3	140 14 7	928 17 10	6,559 18 5	5,631 0 7	..
Cookstown. . .	7,050 19 2	450 0 0	311 17 3	138 2 9	95 13 9	233 10 0	496 12 6	262 16 0	..
Kilrush . . .	8,934 8 10	550 0 0	312 10 11½	237 9 0½	87 0 5	324 9 5½	558 12 11½	234 3 5½	..
Magherafelt . .	9,270 6 2	560 0 0	281 6 0½	278 13 11½	93 17 1	372 11 0½	1,308 17 11	936 6 10½	..
Tralee	10,403 9 11	643 0 0	371 10 1½	271 9 10½	81 8 4	352 18 2½	537 3 3½	174 5 0½	..
Galway . . .	12,477 8 9	637 3 9	309 19 11	327 10 10	136 14 0	464 4 10	931 14 6½	467 9 8½	..
Ballymoney . .	9,318 5 5	534 4 0	321 3 0	213 1 0	121 5 6	334 6 6	570 8 2	236 1 8	..
Macroom . . .	8,404 13 8	510 0 0	357 7 5	152 12 7	138 14 9	201 7 4	841 18 8	550 11 4	..
Roscommon . .	9,414 1 2	588 0 0	351 19 0	236 1 0	168 19 5	405 0 5	357 15 9½	..	47 4 7½
Dungannon . .	9,211 8 4	550 0 0	311 12 10	238 7 2	112 0 3	350 13 5	769 11 7	418 18 2	..
Lisnaskea . . .	7,968 16 0	521 0 0	338 17 6	182 2 6	95 11 6	277 14 0	733 13 11	455 19 11	..
Castlerea . . .	10,725 18 4	665 0 0	371 18 7	293 1 5	157 13 3	450 14 8	453 11 11½	2 17 3½	..
Coleraine . . .	9,385 0 4	570 12 6	317 11 10	253 0 8	55 3 1	308 3 9	508 6 11½	200 3 2½	..
New Ross. . .	9,601 2 9	650 0 0	289 10 11	360 9 1	68 9 1	428 18 2	517 6 5½	88 8 3½	..
Wexford . . .	6,877 17 10	520 0 0	239 17 6	260 2 6	78 9 7	358 12 1	174 16 5½	..	183 15 7½
	398,563 18 11¾	25,877 19 0½	12,678 17 2¾	13,199 1 10	4,068 16 2	17,267 18 0	45,504 8 7½	29,176 5 6	943 14 10½
							Surplus . . .	943 14 10½	
							Net Deficiency .	28,232 10 7½	

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are applied by him to all the Unions, (all the Unions having bad extra bills,) such redress would be properly receivable by all the Unions in the rateable proportion of their extra bills. But if the proposition that the second loans should be remitted, were allowed to have effect, the redress would be enjoyed, we presume, only by those Unions *which had second loans*; and in many of these, redress would be given in respect of sums borrowed at the express desire of the Guardians, and expended under their own *exclusive management and control.*

There are several Unions for which no second loan was required, in which the Guardians nevertheless are considered, both by themselves and by the architect, to have paid more dearly for their workhouses, than the Guardians of Unions for which second loans were borrowed.

For example, in the Ballinasloe and Castlerea Unions, workhouses have been built to contain each 1000 inmates.

At Ballinasloe two loans were required to defray the expenditure, which amounted to 10,729*l.* 15*s.* 9*d.*; at Castlerea the first loan proved sufficient, the amount of the expenditure being 10,725*l.* 18*s.* 4*d.*

Again, in each of the following Unions, *viz.*, Ennistymon, Granard, Bantry, Cookstown, Enniscortby, and Ardee, a workhouse has been built to contain 600 inmates.

In each of the three first-named there was only one loan; the expenditure being—

For Ennistymon.	£9,722	15	1
Granard	7,590	13	7
Bantry	6,963	8	9

In each of the other three a second loan was required, and the total amount of the expenditure was in each case as follows, *viz.*,—

Cookstown	£7,050	19	2
Enniscorthy	7,536	17	0
Ardee.	7,578	8	4

The respective amounts of the extra bills in the six last-mentioned Unions are as follows, *viz.*—

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	Extra Bills. £.	s.	d.	
Ennistymon . . .	1,119	8	6	No second loan required.
Granard	889	19	4½	
Bantry.	627	15	8	
Cookstown	1,172	2	11	A second loan required.
Enniscorthy . . .	462	18	6	
Ardee	1,408	0	2½	

Now Mr. Pennethorne's observations on the extravagant charges allowed in the extra bills, relate (as already noticed) to the extra bills of the Unions generally; and the extra bills will be seen, by reference to Mr. Pennethorne's Table XII., to have been considerable, in almost all the Unions which required no second loan.

It cannot be supposed, therefore, that any adjustment of the claims of Unions, to redress, founded upon a remission of the second loans, would be either just and proper, or generally satisfactory.

We think it will have appeared from the preceding observations:—

1. That the grounds adduced by Mr. Pennethorne for remitting to the Unions a portion of the sums expended in the building of the workhouses, so far as the same have reference to the complaints of the Guardians that they were deceived by the Commissioners, are not borne out by a fair construction of the documents which have been examined, *viz.*, the estimates for the first loans, the orders which are framed thereon, and the actual state of the building accounts.

2. That if any sum were to be remitted, Mr. Pennethorne has wholly failed in his attempt to identify that sum with the amount of the second loans, *viz.*, 125,000*l.*

We now proceed to the examination of the papers in reference to the second charge, *viz.*, that of mismanagement in permitting so much expenditure to take place extra to the contract, and of extravagance in the allowance of prices in the contractor's extra bills; in respect of which charge Mr. Pennethorne suggests the other alternative branch of his proposition, *viz.*, to remit 50,000*l.*

The confusion already remarked upon in reference to the sum of 125,000*l.* appears to exist also regarding the sum of 50,000*l.*, which Mr. Pennethorne connects, in a way quite unaccountable to us, with the amount of the second loans; arriving, as he does, at the sum of 50,000*l.*, by stating that, in his opinion, 75,000*l.* only of the whole amount of the second loans has been usefully and beneficially expended.—(*See* passage already cited from page 85 of his Report.)

Now Mr. Pennethorne's reports on the complaints of the Guardians relate to the extra bills generally, whether paid for out of the first loans, or the second loans; and we cannot, therefore, understand what the amount of the second loans has to do with the sums to be remitted on the ground of extravagance in the extra bills; which are common to all the Unions, whether having second loans or not. The remarks already made on Mr. Pennethorne's peculiar view of the claims of Unions for redress, and on the difficulty of adjusting them according to that view, apply equally to the proposal of remitting this portion of the second loans, as to that of remitting the whole.

The grounds assigned by Mr. Pennethorne for remitting 50,000*l.* will be sufficiently shown by the following passages selected from his general Report.

At page 12, he states:—

> " A great portion of these works (extra works) were essential for the completion of the buildings, " but they would have been done more economically if included in the contract."

Again, at page 12:—

> " It may have been anticipated that, as all the houses were built according to very similar drawings, " and *according to one general printed specification, with very seldom indeed any reference to locality*, the errors committed in the first will appear in all; and this has been the case, except in a few " instances, where corrections have been made in respect to houses lately contracted for. I shall, " therefore, remark generally upon all the bills, and in nearly the order of the several items of extra " works as they stand in the table of the cost of extra works."

On the subject of the extra charges for foundations, he states:—

> " The drawings for all the buildings were made as for *level ground*, and the specification usually " provided for the walls of the high buildings to be carried down about 3 feet 6, and of the low " buildings 2 feet 6 below the floors. I have already stated (speaking of the 'execution of the " works of the buildings'), that not above one-third of the houses have been built on level ground, and " that one-third have been built on very steep banks. The sites were *always known before the tenders* " *were made*, and were shown to the competitors by the clerks of Unions, and therefore it must have " been known to them and to the architect, that extras would occur, and that those extras would be " enormous for the houses built on steep banks, or on rocky ground. The usual practice is, before " submitting drawings for tenders, to have the levels of the site measured, the nature of the foundations ascertained, and plans and sections made to show the excavations and foundation-walls and " footings required for the building; if this course had been adopted these extras would have been " avoided, a large expenditure would have been saved, and the cost would have been included in the " order to borrow."

At page 20, he says:—

> " All the fixtures, fittings, &c., and the greater part of the extra works, for which the sum of " 225,000*l.* has been expended, have been necessary for the completion of the buildings; but how " much less than that such these fittings and works would have cost, if they had been included in the " first contracts, it is impossible to know. Some approximation, however, may be made to a knowledge of how much of the same 225,000*l.* has arisen from overcharges in the prices of these works

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"when they were required to be done as extras. The opinions of some of the guardians on this "subject in respect to their own particular cases, may be gathered from the bills that have been "examined in detail by their architects, and by comparing their deductions with the amounts "certified." . . .

—	Bill Certified.			Bill according to Guardians' Architects.			Deductions per Cent.
	£.	*s.*	*d.*	£.	*s.*	*d.*	
Omagh . . .	2,174	8	11½	1,337	1	10	38
Limerick . .	4,453	11	7½	3,923	19	8	12*
Strabane . .	2,338	1	2	1,763	13	3	25
Londonderry .	851	11	9	624	2	11	25

* "Without quantities."

Again, at page 21:—

"I have also examined the bills themselves, so far as they could be understood, as to the mode of "measuring the works, and having fully considered these extra bills, the high prices allowed, the "mode of measurement, the alterations made in the buildings on account of the system adopted in "making the plans, and other circumstances, I have come to the conclusion that the 130 Unions "have been improperly put to an expense of not less than 50,000*l.* out of the 225,000*l.* for extras, "fixtures, and fittings."

The paragraph last quoted purports to set forth the considerations on which the proposal to remit 50,000*l.* is founded; and it will be seen that these considerations embrace nothing beyond the extra bills, and that they all result in this conclusion, *viz.*, that a sum should be remitted equal to the supposed excess of the extra bills, as certified by the architect, over the amount for which the same works ought to have been obtained.

The question then appears to be one exclusively of measurement and prices. It was in Mr. Pennethorne's power to have made a most exact and precise calculation on this point, by measuring and valuing, in one or more houses, the works and articles for which allowance had been made in the extra bills. This course, he says, he at one time contemplated; and he gives, at page 21, his reasons for not adopting it, of the sufficiency of which it is not for us to express any opinion; but it seems to us (without reference, we repeat, to the sufficiency of the reasons adverted to) that this was precisely the mode in which an architect of high character and undoubted judgment, unpossessed by any bias, and perfectly independent of the parties complaining and complained of, would have been enabled to arrive at, and to report results, on which reliance could be placed. The present results cannot, as we think, be relied on; the calculations on which they are founded being, apparently, defective, and the results themselves at variance, as we think, with a fair and full consideration of the official papers.

The only approach to a calculation of the proper amount of the sum to be remitted, is the comparison made in the four cases of Omagh, Limerick, Strabane, and Londonderry, between the bills, as certified by the architect of the Commissioners, and the same bills, as adjusted by architects on behalf of the Guardians.

The result of that comparison is, on the average of the four cases, a deduction of 25 per cent. from the bills as certified by the architect of the Commissioners.

The deduction from the entire amount of all the extra bills, *viz.*, 225,000*l*, would, at this rate, be 56,250*l.* There being no trace of any other calculation, it is presumed that Mr. Pennethorne has acted to some extent upon this average; but that, in so doing, he has foregone the sum of 6,250*l.*, in consideration of some circumstances favourable to the Commissioners and their architect, which, however, are not pointed out.

We refer to the observations of Mr. Wilkinson on this part of Mr. Pennethorne's Report, as showing that the deductions made by the Guardians' architects at Omagh, Limerick, Strabene. and Londonderry, cannot be relied on as a proper basis for making this important calculation. The use of this basis appears to us objectionable in the following respects:—

1st. In using it, Mr. Pennethorne admits, in each case, the full extent of the grievence, as stated by the party complaining; without making any sufficient inquiry (so far as appears by his Report) whether the grievance existed to the full extent complained of or not. Such inquiries as Mr. Pennethorne appears to have made in the Omagh and Londonderry Unions, on this point, do not afford much support to the measurements and prices of the architects employed by the Guardians; and, in the Reports on Strabane and Limerick, he merely refers to his general observations on the prices.

2nd. A rate of deduction, obtained in the manner above described, does not seem applicable to the extra bills of Unions, the Guardians of which complain, but do not set forth the extent of the grievances they complain of.

3rd. Still less is it applicable to the extra bills of Unions, the Guardians of which have made no complaint on the score of cost. It may here be observed that, of the 64 Boards of Guardians who were invited by Mr. Pennethorne (we do not use the word invidiously) to complain of the cost of their workhouses, nearly one-third appear not to have responded to the invitation.

4th. Least of all would such a calculation apply to the extra bills of those Unions, the Guardians of which, so far from making complaint, have expressed themselves satisfied in regard to the cost of the building.

It seems scarcely correct, therefore, that a calculation like this, derived from four Unions, should be applied to the extra bills of all the 130.

Mr. Pennethorne appears to be much influenced in his calculations, or rather his conjectures, about the measurements and prices, by the supposition that, if a separate and full specification, instead of a printed and defective form, had been adopted in each Union, framed according to the peculiar circumstances of each, a great saving would have been effected by throwing open works to public competition, which were ultimately found necessary, and for which the contractor was paid extra, and beyond the sum stipulated for in his contract.

The real weight which is due to this supposition will be best seen by reference to the forms of contract and specification which were used, and we therefore attach copies of them to this Report.

Nos. II. III.

The contract states—

> "And it is hereby declared and agreed by and between the said parties hereto, that in case the said Commissioners for the time being should direct any more work to be done in or about the said workhouse, buildings, or works, than is contained or described in the aforesaid drawings and specification, then and in such case the said Commissioners for the time being shall pay or cause to be paid unto the said his executors or administrators, so much money as such extra work, and the materials used therein, shall cost or amount unto, anything hereinbefore contained to the contrary notwithstanding; and that if it should be thought proper by the said Commissioners for the time being, to diminish or omit any part of the work mentioned or contained in the said drawings and specification, then, and in such case the said his executors or administrators, shall deduct and allow out of the said sum of so much money as the work so to be diminished or omitted shall amount unto, upon a reasonable valuation, anything hereinbefore contained to the contrary notwithstanding; and all allowances or deductions for such extra or omitted works respectively, shall be ascertained and settled by the architect for the time being of the said Commissioners, agreeably to the conditions in the said specification contained relating to the valuation of such extra or omitted work."

The following is the clause in the form of specification referred to in the above extract from the contract:—

> "No additional work is to be executed or allowed for, unless done in pursuance of the written direction of the architect; and no omissions from, or alterations in, the specified works are to be made, except by such written direction; and no additions, omissions, or alterations, so directed to be made, are to have any effect in invalidating or annulling the contract. Any additional work that may be necessary in the foundations of the building, and directed to be done, or any work which may be directed by the architect to be omitted from the contract in not requiring the foundations of the walls to go so deep as specified, is to be taken account of by the clerk of the works; and no foundations are to be covered up without the previous directions of the clerk of the works. The value of all such additional or omitted works is to be ascertained by the architect for the time being, and valued according to a list of prices attached to the articles of agreement, or in case the contractor does not furnish such list, then such valuation is to be made according to the judgment of the said architect, and the value of such extra or omitted work is to be either added to, or deducted from, the amount of the last payment to be made to the contractor on the building contract. All prices for such additional works, being first approved by the architect, must be attached to the contract previous to the execution of it by the contractor."

We think it will be admitted that, whatever quantity of works extra to the contract might be found to be expedient in the progress of the building, there was a sufficient power reserved to the architect of the Commissioners to protect the Guardians and rate-payers of each Union from the effect of extravagant prices in the contractor's bills for extras.

Every disposition has been shown by the contractors (that is, a considerable number of them,) to break through these clauses of the contract, and to contend that they were not legally binding. Several actions have been threatened on this ground by contractors who resisted the architect's reductions of their bills; and the question was, at length, tried in the case of Murray and Magrath *v.* the Poor Law Commissioners, in an action brought by the contractors for the Oldcastle and Granard Workhouses, for the full amount of their extra bills, which had been reduced by the architect to the extent of several hundred pounds.

The Court, in that case, held that the clauses above quoted were binding, and would not go into the question, whether the architect's certificate of the measurement and value of the extra works was a proper and correct one; except with regard to the value of some of the fixtures. Upon these, evidence went to the jury as to the sufficiency of the prices allowed by the architect to the contractors; and the opinion of the jury upon the value of the articles referred to them appeared to be, that the prices allowed by the architect were not sufficient; and had the Commissioners not paid money into Court sufficient to cover the difference on these articles, there would probably have been a verdict against them.

No. V.

We attach to this Report a statement showing the amount of the contractors' bills in 111 Unions, as they stood previously to examination by the architect, and the amount certified by him to be due thereon after examination and correction.

This statement shows that the clauses which subjected these extra bills to the judgment of the architect were not inoperative; the total difference between the amount claimed, and the amount certified, being 85,712*l.* 15*s.* 5*d.*

Whether the architect has deducted from the contractors' extra bills all that he might, and ought to have deducted, appears to be the only question which exists upon the second charge preferred against the Poor Law Commissioners, and upon the proposition to remit 50,000*l.*

We think the preceding observations show that, if any sum were to be remitted on this ground, no means of calculation are furnished by Mr. Pennethorne's Report, to show what the sum in question ought to be.

We have the honour to be,
Gentlemen,
Your very obedient Servants,
EDWARD GULSON,
ALFRED POWER.

To the Poor Law Commissioners,
London.

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Appendix to Mr. Gulson and Mr. Power's Observations.

No. 1.
FOR PURCHASING LAND, BUILDING, FITTING, AND FURNISHING WORKHOUSE.

APPENDIX TO MR. GULSON AND MR. POWER'S OBSERVATIONS.

No. 1.

ANTRIM UNION.

(Order to Raise or Borrow Money.)

To the GUARDIANS of the ANTRIM UNION, and to all others whom it may concern.

Whereas it appears expedient to us, the Poor Law Commissioners, for the due execution of the provisions of an Act passed in the Session of Parliament held in the 1st and 2nd years of the reign of Her present Majesty Queen Victoria, intituled, "An Act for the more Effectual Relief of the Destitute Poor in Ireland," that a workhouse should be built within the Union of Antrim, for the reception, employment, classification, and relief of destitute poor persons therein.

And whereas we have determined to build such workhouse, and have contracted and agreed for the purchase of certain land and premises, and in the execution of the said determination, have testified our approval of certain plans of a workhouse, by affixing our seal thereto, such workhouse being designed for the reception and proper accommodation of nine hundred destitute poor persons, men, women, and children, properly classified.

And whereas it appears to us expedient, that such part only of the said plans should, in the first instance, be executed, as may be requisite for the reception and classification of seven hundred destitute poor; and that the completion of the said workhouse should be deferred, until it shall appear to us necessary to complete the same.

And whereas it has been represented to us, that the cost of erecting, according to the plans aforesaid, such portion of the said workhouse as we have determined, in the first instance, to complete, and of the fitting and furnishing the same, and of providing utensils, instruments, and machinery for setting the poor to work therein, together with the sum required for the purchase of the said land, will amount to the sum of 7,600*l.* sterling, or thereabouts.

Now know ye, that we, the Poor Law Commissioners, in pursuance of the powers given to us by the said Act, and for the purpose of enabling us to complete the purchase of, and to pay for the said land, and to defray the expense of building such part of the said workhouse, as is, in the first instance, intended to be built, and for the other hereinbefore recited purposes, do order and direct the Guardians of the said Union, to assess, raise, and levy the said sum of seven thousand six hundred pounds sterling, as a poor rate on the rateable hereditaments, in or arising within the said Union, or to borrow the said sum, according to the provisions of the said Act, and to charge the same, together with all interest that may accrue thereon, on the future poor rate of the said Union; and we do hereby authorize the said Guardians to borrow the said sum, and charge the said rate accordingly.

And we further order and direct the said Guardians, out of the poor rate, and at the common charge of the several electoral divisions of the said Union, at all times to uphold and maintain the said workhouse in good and substantial repair.

Given under the hands and seal of us, the Poor Law Commissioners, this day of November, in the year of our Lord one thousand eight hundred and forty.

(Signed) J. G. S. LEFEVRE.
G. C. LEWIS.

Forward by Post,
November, 1840.

(Signed) GEO. NICHOLLS.

No. 2.
BUILDING CONTRACT. [*Form No.* 1.]

No. 2.

Building Contract [*Form No.* 1.]

_______________ UNION.

ARTICLES OF AGREEMENT made the day of in the year of our Lord one thousand eight hundred and between the Poor Law Commissioners, of the one part, and of the other part.

The said doth hereby for himself, his heirs, executors, and administrators, covenant, promise, and agree to and with the said Commissioners for the time being, that he the said his executors or administrators, shall or will, for the considerations hereinafter mentioned, and in conformity with the dates set forth in the Specification hereinafter referred to, erect, build, and completely cover in and finish, upon the premises, at aforesaid, a workhouse and buildings, according to the specification, and subject to the clauses or conditions therein contained, and agreeable to the several plans, sections, and elevations, as set forth or shown on the several drawings, lettered respectively and which, with said specification, are severally verified by the signature of the said thereto, as the drawings and specification referred to by this agreement. And also do and perform, and execute, or cause and procure to be done, performed, and executed, all and singular the works also mentioned in the said specification and drawings, the same to be done and completed within the time before referred to, and in a good workmanlike and substantial manner, with such materials and under such regulations as are contained in the aforesaid specification, to the satisfaction of the architect of the Poor Law Commissioners, or any other architect whom the said Commissioners for the time being, shall, for that purpose, by some writing under their seal appoint, such satisfaction to be testified by a writing or certificate under the hand of the said or such other architect as aforesaid. And also shall and will find and provide such good, proper, and sufficient materials of all kinds whatsoever, as shall be proper and sufficient for erecting the said workhouse and buildings, such of the said materials as are mentioned in the said specification, or on the said drawings aforesaid, to be of the qualities and descriptions therein mentioned, and shall and will completely finish the said works. It is also agreed between the said Poor Law Commissioners and the said that he, the said shall and will restore, rebuild, and replace all injury, loss, or damage that may accrue, or be occasioned to the building by fire or otherwise (except when occasioned by public riots, or by lightning), and he the said shall and will ensure the said buildings against all such loss or damage by fire, and shall and will effect such insurance in some public assurance office, for a sum equal in amount to at least

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four-fifths of the amount of the contract. And it is also agreed between the aforesaid parties, that the policy of insurance so effected shall be submitted to the said Poor Law Commissioners for their approval, before any payment on account of the said contract for the erection of the said buildings, shall be made to the said

It is also further agreed between the said parties hereto, that upon the payment of the last instalment due to the said he the said his executors, administrators, or assigns, shall and will transfer and assign to the said Commissioners, any policy or policies of insurance, which may have been entered into in pursuance of the foregoing agreement, and they, the said Poor Law Commissioners, shall and will, on such transfer and assignment, repay to the said all reasonable expenses, which he may have incurred in insuring the said buildings, according to the said agreement. And it is further agreed by and between the said parties, that if the said his executors or administrators, shall in any manner neglect or be guilty of any delay whatsoever in building and completely finishing the said workhouse, buildings, and works as aforesaid, or shall in any manner whatever deviate from or not comply with the aforesaid specification and drawings, or any or either of them, and the said or such other architect as aforesaid, shall certify the same by writing under his hand, and the said Commissioners for the time being shall cause notice in writing of such neglect or delay to be given or left at the place of abode of him the said his executors or administrators, or on the premises, and the said his executors or administrators, shall not, according to the direction of the said or such other architect as aforesaid, complete the said buildings and works, according to the said specification and drawings, within the space of days after such notice given or left as aforesaid, then, and in any such case, it shall be lawful for the said Commissioners for the time being, either to make and enter into a contract with any person or persons whom they, the said Commissioners, may think proper to contract with, for the completion of the said building or of any part thereof, or for the performance of all or any part of the works remaining unfinished, or through their architect or otherwise, to purchase proper and sufficient materials, and also to employ a sufficient number of surveyors, agents, and workmen, to finish and complete the said works; and also that the said Commissioners for the time being, shall and may deduct or retain to themselves the costs of such materials, and all such sum and sums of money as they shall pay to such surveyors, agent, and workmen, for the completion of such works, and all expenses which the said Commissioners for the time being shall incur or be liable to, in entering upon such new contract as aforesaid or in any way, in consequence of such default on the part of the said his executors or administrators, out of the money which shall be due to the said his executors or administrators, under this agreement, so far as such money shall be sufficient, and that if the same shall not be sufficient, then that the said his executors or administrators, will, on demand, pay to the said Commissioners for the time being the amount of such deficiency. And also that the said his executors or administrators, shall not nor will in any manner do, or cause or procure to be done, any act, matter, or thing whatsoever, to prevent, hinder, or molest the said Commissioners for the time being, or any person or persons employed by them, from completing and finishing the said workhouse, buildings, and works, in manner aforesaid, or in using the materials which shall be on the premises, and provided by either of the said parties for the doing thereof. And the said Commissioners do hereby, for themselves and their successors, covenant, promise, and agree to and with the said his executors and administrators, that he the said his executors and administrators, well and truly performing all the covenants and agreements on his part herein contained, they the said Commissioners, or their successors, shall and will well and truly pay, or cause to be paid unto the said his executors, administrators, or assigns, the sum of of lawful money of Great Britain, at the several times, and in the manner and according to the several conditions in the said specification in that behalf contained. And it is hereby declared and agreed by and between the said parties hereto, that in case the said Commissioners for the time being should direct any more work to be done in or about the said workhouse, buildings, or works, than is contained or described in the aforesaid drawings and specification, then, and in such case the said Commissioners for the time being shall pay, or cause to be paid unto the said his executors or administrators, so much money as such extra work and the materials used therein, shall cost or amount unto, anything hereinbefore contained to the contrary notwithstanding; and that if it should be thought proper by the said Commissioners for the time being, to diminish or omit any part of the work mentioned or contained in the said drawings and specification, then, and in such case the said his executors or administrators, shall deduct and allow out of the said sum of so much money as the work so to be diminished or omitted shall amount unto, upon a reasonable valuation, anything hereinbefore contained to the contrary notwithstanding: and all allowances or deductions for such extra or omitted works respectively, shall be ascertained and settled by the architect for the time being of the said Commissioners, agreeably to the conditions in the said specification contained, relating to the valuation of such extra or omitted work. And it is hereby also further agreed, that in case of the non-performance or non-fulfilment, by the said his executors or administrators, of the several stipulations and agreements herein contained according to the true intent and meaning thereof, so far as the same are to be performed and fulfilled by the said his executors or administrators, the said Commissioners may, if they shall think proper, upon receiving from the said or their architect for the time being, a certificate in writing of such non-performance or non-fulfilment, declare this agreement to be null and void; provided nevertheless, that such annulling and avoidance of this agreement shall not release or exonerate the said his executors or administrators, or any other person who may be bound in any security on his or their behalf for the fulfilment thereof, from any penalties or liabilities that he or they may have incurred by or by means of such non-performance or non-fulfilment as aforesaid.

In witness whereof the said Commissioners }
have hereunto set their hands and seal. }
And the said }
has hereunto set his hand and seal. }

Witness, ________________________

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No. 3.

IRELAND.

Specification of Works required to be performed in the erection of the Union Workhouse.
George Wilkinson, Architect.

———————— *Union.*

SPECIFICATION OF WORKS.

Section No. 1.—Mason, Bricklayer, &c.

No. 3. SPECIFICATION OF WORKS.

Take off and make up, where required, the whole surface of the building site, by cutting away all high or uneven ground above a given level, and wheeling or filling up all hollow places, or wheeling where directed all superfluous earth; where hollow or lower ground occurs the foundations of the walls to be first constructed before any loose earth is thrown in for filling it up to make an even surface; the level of the yards and surrounding ground to be 6 inches below the floors of the rooms; and the ground outside the walls to a distance of at least 10 feet round the building, to be made up to the same level as the yards; the yards to have a surface made to allow free drainage to the iron gratings to be put in each yard where shown on the plan, which are to be placed at a level of 18 inches below the floors of the building.

The digging for the foundations, drains, cesspools, or other works, to be sufficiently wide and deep to allow the same to be carefully executed, and no work to be covered in until directed by the clerk of the works, when it is to be carefully rammed.

Particular care is to be given in keeping the trenches dry, and also the surface of the building ground; the contractor to find all pumps, ladles, labour, &c., necessary for doing so, and to form all surface drains to keep the ground surrounding the building perfectly dry.

To sink a well where shown on plan, and go a sufficient depth to insure a strong and good supply of water; the well, unless where carried through a rock sufficiently sound, to be lined with a dry stone wall 18 inches thick at least, and to be 3 feet clear diameter between the walls; the well to be made the increased width of at least 6 feet wide as high as 5 feet above the bottom, narrowing up to 3 feet, in order to make a large reservoir for holding water.

The walls and other works to be executed with the materials hereafter described, and which are to be the best of their several kinds. The boundary or division wall of yards to be made 7 feet high, except described on the plan to be carried any other height in any part; they are to be 20 inches thick at the level of the ground, diminishing to 16 inches thick at top, where the coping begins.

The foundations to be carefully constructed with close bedded stones, of the dimensions shown in the drawings, and of the several depths required for obtaining good sound bearing for the walls, which are all to be examined and approved of before the walling is commenced; the contractor will be responsible for all defects that may arise from not obtaining good sound foundations, which are to be brought to even and level surfaces under the whole of the buildings before any of the walling is commenced, none of which is to be constructed on inclined ground. The foundation walling of the different buildings to be completed throughout, before the walling of the superstructure is commenced, which is to begin 12 inches below the level of the several floors. Should it be found necessary to carry the foundations to a greater depth than provided in the drawings, or should they not be required to go so deep as specified, the same to be allowed for according to the regulation contained in the general clauses at the end of this specification.

The foundations for the walls of the high buildings to be carried below the level of the floors.

The foundations to the walls of the chapel, kitchen, offices, and other one-height buildings to be calculated below the level of floors.

The boundary walls to be taken deep below the level of the yards when finished.

Partitions to have 18-inch walling under them, and carried to the same depth as described for the buildings.

The walling throughout to be of the thickness and heights shown or figured on the drawings; it is intended that the walls of the house, unless otherwise figured or described, should not be less than inches thick, and the walling of every floor to be 2 inches thicker than the walling it supports, the thickness of the walls being increased 2 inches for each floor or story carried immediately above them; the several sets-off to the foundation walls, as shown in the sections, are not to be less than 3 inches on each side.

The walls, both internally and externally, to be constructed of rubble work, and unless where otherwise described on the drawings, the stones carefully laid, to make both the inside and outside equally smooth, it being intended that both sides shall be smoothly and neatly finished; the rooms internally (except those otherwise described in the Section of Plasterers' Work) to be white-washed only and not plastered.

The quoins to the main angles of buildings to be constructed with the largest walling stones, and to have headers and stretchers bonding not less than 10 inches into the walls; the jambs to the windows and doors to be either of rough hammer-dressed wall stones, or brick jambs, constructed with three courses of 9-inch, and three courses of 14-inch brick work alternately. Where brick jambs are used, the arches are to be of the same materials.

The walls to be constructed from scaffolding erected on both sides, and none to be built over hand; great care is to be taken that the mortar does not run over the outside of the walls, which the contractor will be required to keep quite clean; the joints of the stone work to be filled close with well compounded mortar, the interior of the walls not to be filled up with small pieces of stone, but with well laid and closely bedded materials, and particular care to be given in using a sufficient number of headers or bond stones, in the proportion of not less than six to every 50 feet superficial; liquid mortar grout to be used in such part of the walls, and when and where directed by the clerk of the works; no part of the walls of any building to be carried more than one scaffold high above the other.

Gables, where shown to be constructed with stone, are to have solid knee stones 6 inches thick, and coping placed on 9-inch walling to be 13 inches wide and 6 inches thick, throated on both edges, which are to project 2 inches from the face of the wall on both sides; the coping to have the front edge 2½ inches thick, and to have No. 2 six-inch splays or chamfers on top on both sides; the nine-inch walling to be carried up to receive the coping, which is to have its under bed kept 6 inches from the slates.

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The windows shown to have small stone gables over them are to be constructed as before, with the underside of coping kept 4 inches from the slates; the coping to be only 11 inches wide, weathered and constructed as last, with two 4½-inch splays, to be 5 inches thick, and placed on 8-inch walling.

Where division or boundary walls to the yards are described to be dwarf walls, they are to be 4 feet high, and coped with semi-circular rough hammered stones, unless otherwise described on the drawings.

Where shown on plan, against the yard walls, the walling is to be carried up of the increased thickness necessary to form a stone bench about 18 inches high and 14 inches wide; the top is to be covered with stone flagging not less than 2½ inches thick, tailed at least 6 inches into the wall, in order to firmly secure the same; the flagging being intended to form a seat, is to be laid with a fall of half an inch, to throw off any water after rains.

The chimney-shafts above the roofs to be carried up in brick-work, except where otherwise described to be built with stone. All chimney-shafts on side-walls to be carried at least the height of the ridges of roofs, and those on the ridges to be not less than 4 feet above the ridge, and unless otherwise shown on the drawings, to be capped on top with square stone, weathered and throated, with two inches' projection, with the flues sunk out of the solid, and to be at least 4 inches thick. No. 2 flues are to be carried up from the wash-house, and No. 2 from the kitchen, to be commenced 18 inches above the floor; all air or other flues to be carried up where shown or described.

The openings of all fire-places, where not otherwise described, are, instead of chimney-pieces, to have 9-inch brick-work carried round the same, projecting 1 inch from the face of wall or chimney-breast, the mantle being formed with 9-inch brick arch, having a 2-inch rise, and turned on iron chimney-bars, as described in the Section for Smith's Work.

The contractor to provide a chimney-piece, according to a pattern to be approved, of the value of £4 for the board-room, and £2 for the clerk's office, master's two rooms on the ground floor, and surgery; all other fire-places to be as described, and of the widths shown, and 3 feet 6 inches high.

All flues to be carefully constructed where shown or described on the plan, and, except when otherwise directed, to be of the clear size of 14 inches by 9, to be all pargetted with proper mortar, and left quite smooth; a sweep to be sent down them all when finished, to dislodge any mortar, &c., that may have fallen down, and the whole to be left in a clear and perfect state; great care to be taken that no timber is allowed to come within 9 inches of any flue, and all flues to be surrounded by 4½ inch brick-work, which is always to be closely bedded in mortar, and no air holes or space left near it, (no flue to have less than 9-inch work enclosing it.)

Half-brick trimmers to be turned on the floors, above the ground, for all chimney-slabs which are to be provided of the materials hereafter described, and 18 inches longer than the openings, and 18 inches wide; all chimney-jambs of the upper floors that are not carried on work from below, are to rest on strong stone corbels, projecting from the wall the size of the jamb, with a bed equal to their projection, and not less than 9 inches thick, dressed on the exposed surface. Hearth-stones, as the last described, are to be provided to all fire-places on the ground floor, which are to rest on stone walls built up to receive them.

The piers to large outer gates of yards are to be built with the common wall stones, with plinth and reveal, as shown, the largest stones are to be selected for the purpose, the angles are to be rough hammered and closely jointed; the capping to be made with a solid stone, weathered on top, and not less than 3 inches projection, and 6 inches thick in the centre, and 4 inches on the edges; two large stones to be provided for each pier, to receive the iron-work for the hinges of gates, which are to be sunk in the work, and leaded in the stone; a rough spur stone to be provided for each pier, not less than 3 feet long, and sunk in the ground, with 18 inches of ditto above the ground, in order to prevent wheels from coming against the piers; a sunk stop-stone, about 9 inches square, sunk at least 1 foot 6 inches in the ground, and to stand about 4 inches above ditto, for closing the gates and receiving iron bolt.

All frames to windows and doors to be very closely bedded, the stone-work to be closely worked up to them, and, except where shown or described on the drawings, the frames are intended to be set without reveals in the walling; so that they are to be closely bedded and well flushed at the time with good mortar, in order to make the whole water and weather-tight. All window and door frames are to be set 6 inches from the face of the wall, where the outside arches are turned with rough hammered stone; and where brick arches are used, they are to be 4½ inches from the face of the wall; no wood lintels to be used, except where particularly described on plans.

The several arches of the doors and windows are to be turned with either 16 inches stone arches, or 14 inches brick arches to the ground floor and first floor of the high buildings; but the openings of doors and windows of all the low buildings, and the floors of high buildings near the roof, are to be turned with either 14-inch stone, or 9-inch brick arches.

Window sills to be used to all openings, (unless where the windows are described on the drawings to be otherwise finished,) to be 4 inches thick, with 2 inches projection from the face of the wall, and throated on the under side, and 4 inches longer than the openings; the sill to be carried at least 2 inches under the sill of window frame; the walling of the window on the inside is to be sloped to an angle of about 45 degrees, with large wall stones or flat-bedded common flagging stones, instead of window boards, which are to be used only to those windows so described in the carpenter's work. The workmanship to the slope is required to be closely bedded, but not finished better than described for the walling of the rooms.

Great care is to be given in making all angles of walls and openings perpendicular, the contractor to find sufficient number of plumb-rules, squares, and levels, for the use of the workmen, and to be used by the clerk of the works when required; all lintels, templates, and bond-plates, to be carefully bedded and laid level.

All cut stone used to be laid in its natural bed, to be free from defects, and closely pointed; all dressings to string courses and other projections, to have a bed in the wall, at least equal to their outward projection.

The stone work throughout to the dressings, steps, &c., and other squared or moulded work, to be executed agreeably to the drawings, and according to moulds to be made and approved; the stone steps to stairs to be rough punched or pecked on the under side, and close punched or pecked on the upper face of treads, risers, and ends; no work is intended to be rubbed except as described. The stone staircases shown on the drawings, to have stone landings, of the thickness of at least 5 inches; the joints are to be joggled at least 1 inch, and run with lead, the stone landings and steps to tail at least 6 inches into the walls. A strong stone, not less than 6 inches thick, and containing at least 2 feet superficial, to be placed to receive the newel of stairs at the end of the first step, and the said step to have a rubble wall constructed underneath to receive it; the size of the steps to be 7½ inches clear rise, and 10 inches clear tread; the width of steps to be 3 feet from the face of wall.

Where steps are shown on ground plan to the outer doors, they are to be of the same rise, &c., as the last described, and supported on solid rubble work; the steps to be rough punched on the exposed surface, and to have rebated joints, as described for stairs.

All bricks to be strong, hard burnt, and of the best quality; all defective and bad made bricks that may be rejected by the clerk of the works to be immediately removed from off the premises. The mortar to be flushed close, and quite solid in the joints, which are not to exceed half an inch in thickness; the work to be grouted with liquid mortar when directed, and the whole of the outside to be kept quite clean.

The mortar used to be of approved quality, (and compounded in the proportions of 1 part lime and 2½ parts sand, unless otherwise described,) of good fresh lime, carefully burnt, free from stones, and riddled or screened if required, mixed with good clean sharp sand for the brick-work, and good clean coarse sand or fine sharp sifted gravel for the stone work of walls; all joints of freestone, or other dressed stone-work, to be set with strong fine mortar.

Construct in each yard, where shown on plan, a flat stone 3 feet square, at least 4 inches thick, and let in a 12-inch cast-iron grating; under each stone construct a small cesspool, 2 feet square and 4 feet deep, lined with 14-inch walling, and construct a drain 6 inches square in the clear, leading from the same; also prepare and fix in the wash-house and kitchen offices were shown on plan, a 4-inch sink-stone, containing at least 4 feet superficial, prepared for a 12-inch cast iron sink-trap, over a 6-inch square drain leading to the cesspool in yard.

The privies to the boys' and girls' yards to be constructed according to section, and a 2-feet drain to be made from ditto to a large outer cesspool of the size and form shown on plan, lined with walling 18 inches thick, arched or doomed over at top with a 14-inch stone or 9-inch brick arch, a manhole 3 feet diameter to be left at top, and covered with a large flat stone, for the purpose of clearing out the same when required. (The cesspool to be at least 6 feet clear height on the inside to the springing of arch.)

Where the privies are shown to have vaults underneath them, the foundation walling is to be carried to the depth of at least 7 feet clear height from the springing of arch, and of the form and size shown on plan; the walling, where described, is to be at least 18 inches thick, the whole to be arched over with not less than a 14-inch stone mortar wall, or a 9-inch brick wall, and on the outside of yards a manhole to be left 3 feet diameter, covered with a flat stone for clearing out the same; all drains to be executed as shown in drawings, and to have a fall of not less than 3 inches in 10 feet.

To leave openings for and insert, where directed by the clerk of the works, cast-iron gratings for ventilators to rooms, timbers, &c.; the size of the openings to be 9 inches by 4.

All large beams or girders, carrying the joists that have their ends inserted in the walls, to have a clear narrow space left all round to allow the air to circulate.

The mason to cut all chases required, and to bed and insert all lead flashings that are described to be used to the gables, chimney-shafts, &c.

The yard walls, except otherwise described on drawings, are to be coped on the yard side, at an angle of 45 degrees, with common wall stones, the stones to be closely set in their beds and laid with good mortar.

The small refractory ward in front building to be covered with rough flat stones and mortar to make a strong and secure ceiling, the stones to be carried on iron bars thrown across; where the stones are not sufficiently large, the top of stone-work to be covered with rubble, and grouted with liquid mortar.

No centering to doors, windows, or other openings, to be struck or removed until so directed by the clerk of the works. The whole of the centering and trimming pieces required, are to be provided of the exact width and forms as shown or described for the several openings, &c.

The doorways in division walls of yards are to have a stone lintel not less than 3 inches thick, and the width of the wall, and 18 inches longer than the opening, or a 14-inch stone, or a 9-inch brick arch, with a slight rise, but to fit close on top of door-frame, which is to be carried up with the walling.

Solid stone blocks to be inserted in walls for all inner door-ways, to project 5 inches level with the floor, and mortised to receive door-stiles. All outer door-ways to have stone sills, 12 inches wide, 6 thick, and 8 longer than openings mortised for door-posts.

Solid stone blocks, not less than 2 feet long, with at least 9 inches above the ground, worked 11 inches square, and chamfered on top, and mortised to receive 9½ inch posts to support the roofs.

Solid stone blocks to be inserted under iron columns, where intended to be used as described in Smith's work.

An office to be built solely for the use of the clerk of the works, and constructed with 9 inch brickwork, or with studding and plastering, and rough-cast on the outside; the office to be floored with 1 inch deal floor on joists, or with brick tiles; the size of the office to be 10 feet by 8 feet in the clear, and 7 feet 6 inches to the underside of plate; to contain a fire-place, a grate, and desk, not less than 6 feet long and 4 feet wide, with large tray in ditto for drawings; also a small drawer, containing 1 foot 6 inches superficial, with good lock and key; the outer door to have a good strong lock and small key, the door to be 1½ inch thick; a window to put in office, containing not less than 10 feet superficial, with shutters and fastening.

The office to be removed by the contractor at the completion of the works, but to be kept in good repair during the execution of the building.

Discharging arches, in either one brick or stone, to be turned over all lintels or openings where directed, and inverted arches under all openings where the nature of the ground in the foundations require them to be made; where discharging arches are directed to be used over wood lintels, they are to be turned from the extreme end of the wood-work.

All the doorways opening into large stone staircases, and into stairs of infirmary, are to have semicircular arches turned over the door-frames, and the spaces left open. Those openings only that are marked B are to have no doors, but arched as before described.

DRAINS

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Section No. 2.—Carpenter, Joiner, &c.

The timber used in the roofs, bond-plates, lintels, joists, and other scantlings, to be either from the Baltic, of Memel, Riga, or Dantzic, or of Quebec red pine; the floors and other works to be of the several descriptions hereinafter described, and all the materials to be of the best quality of their several kinds, well seasoned and free from defects, and large or dead knots; the whole to be executed according to the several drawings, and of the scantlings marked or described thereon. No wood work to be covered up in the walls unless examined and approved of by the clerk of the works; the timber to be cut square and straight, and all bond lintels, &c., laid quite level; bond timbers to be halved at least 6 inches at the joints, and well spiked, and where it passes through flues, an iron bond or tie to be made to connect it. The whole of the several scantlings throughout to be finished of the full dimensions shown or described on the drawings, and all flooring and other work to be left of the thicknesses hereafter stated.

All the oak described to be used to be either Riga, or of Irish or English growth.

Roofing, unless otherwise figured, to have wall plates, 6 by 2½ inches; hips, 9 by 1½ inches; ridges, 6 by 1¼ inches; vallies, 14 by 3 inches. Ditto to dormers, 4½ by 2½ inches; dragon pieces, 5 by 4 inches; common rafters, 3½ by 2 inches.

No timber to be placed nearer any flue than is directed in the Mason's work.

Roofs, where shown to have the gables project, to receive gable boards, are to have purlines carried out to receive the boarding, which is to be of oak 1¾ inch thick, and left rough from the saw, and cut according to pattern; the board to be under the slates, which are to project 2 inches beyond it; the battens to be carried out and nailed on the top edge of board, instead of a rafter; the purlines and plates are to project 14 inches, on which the boarding is to be securely spiked, and false plates carried where shown on drawings, or required, which are to be the size of the plate of roofs, and to be tailed at least 18 inches on the walls.

The gable boards to the small windows, where shown to be so constructed, are to be worked as last described, the purlines and plates carried out 11 inches to receive the oak boards, which are to be as pattern, and 1½ inch thick.

The dormer windows are to have boards of the same kind, cut according to a plain pattern, and to have the same projection as for the last small windows.

All lintels, where described to be used, are to have a bearing of at least 9 inches at each end on the walls, and to be at least 4 inches thick, and placed over the several openings to doors and windows, as shown on the drawing made for such purpose; a small chamfer to be made on the edge one quarter of an inch wide. All joists to floors to be placed not more than 12 inches apart, and rafters 15 inches from centre to centre. All joists coming immediately under the partitions described as framed and trussed, are to have the joists 3 inches thick, to form a sill to receive the quarters, and those under the ledged and boarded partitions are to have the joists 2½ inches thick.

The board-room and clerk's office, and the two rooms to master's house, to have 1¾ inch square framed 6 panel doors, hung with 3 inch butt hinges, with a plain ogee or ovolo moulding 2¾ inches wide on both sides; the front door to master's house and entrance front to be framed 2¼ inches thick, of the size and shape shown on drawings; the frame to be 5 by 4 inches, wrought in the solid, rebated chamfered.

All doors, not otherwise described, are to be 1¼ inch thick to the ground floors, ledged, rebated, and beaded, with No. 4 ledges, 8 inches wide, and 1¼ inch thick, with frames tenoned into stone blocks or sills; they are to be rebated and chamfered on the edge, and of the size of 4½ by 3 inches; door-heads, of the same scantling, with horns or joggles, 6 inches long, built in the wall. All doors to the rooms above the ground-floor are to be 1 inch thick, and as the last described, but with 3 ledges only on them. (The privies are not intended to have doors and frames.)

The doors to the refractory ward and cells to be 1¾ inches thick red deal, made with two thicknesses of ⅞th inch ditto, cross laid, and well nailed and clenched; to have proper rebated and beaded door-frames, 4 inches by 5 inches, mortised into sills or stones.

Where doorways occur in partitions, the studs are to be made 1½ inch wider round the doors, to serve for frames, and grooved for plastering, but where they occur in partitions not described to be plastered, they are to be of the usual scantlings.

All doors, except otherwise described or shown on the drawings, are to be 6 feet 10 inches high, and 2 feet 10 inches wide, clear of frame. (Doors to cells and refractory ward to be 2 feet 4 inches wide, clear of frame.)

The doors and gates placed in the outer yards to be executed of the sizes and forms shown on the drawings, to be framed with 2½ inches red deal, and 1½ inch ledges and braces, and filled in with 1 inch red deal battens, in widths not exceeding 6 inches, ploughed, tongued, and beaded; the doors to be hung to irons inserted in the walls; the gates to be in two widths, and capped with solid weather capping, and to have on top a row of wrought iron spikes 2 inches high, let into iron plate; strong bolts and other fastenings to be fixed on the gates, as hereafter described; the hinges to be made with hooks and eyes, 2 feet 6 inches long, and secured with iron bolts.

The floors to be 1 inch thick, and cut out of white American deal of approved quality, the floor boards to be cut of even thickness, and to be left rough on the underside, to receive whitewash; they are to be tongued with strong hoop iron 1 inch wide; the ends to be fitted closely against the walls, which are not to be skirted, except to those described in the Section of Plastering Work, as in the board-room, which is to have 9 inches wide red deal torus skirting, 1 inch thick; the clerk's office 7 inch torus skirting 1 inch thick, and 7 inch torus skirting also to the two rooms of master's house on the ground floor, and the two bed-rooms over them, on the one pair, the skirting to be plugged to to walls.

The several windows to be constructed with solid red deal or Memel frames, according to the drawings, and of the several sizes and forms shown, and unless otherwise described, they are to have cast-iron lights according to drawings.

The several windows above the height of 3 feet 6 inches are intended to have transoms, except to dormer on roof. Dormer windows to be 3 feet 10 inches high, and 3 feet 6 inches wide; the windows marked A on plans are to be 5 feet high, and 2 feet and half an inch wide; those marked B, to the washhouse and kitchen offices, are to be 4 feet wide, and 3 feet 6 inches high. The window to the washing-room in front entrance building, to be 3 feet 10 inches high, by 2 feet 1½ inches wide; all other windows to be of the size shown or described on the drawings.

The dimensions given for the windows are taken outside the frames, in which manner they are

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intended to be shown in the drawings, without regard to any reveals that may be described to be formed in the walling.

The scantlings throughout to be 4½ by 3 inches, for the frames, mullions, transoms, &c., all the windows with transom-heads to have the upper light to open as shown on drawing; cast-iron lights are to be fixed securely in oil-putty into the rebate of frame. Every window of the rooms above the one pair floor to have one of the lights hung with hinges, to open for the purpose of cleaning the outside of the lights, and secured with closing fastening prepared for small padlock.

The contract to include all temporary fastenings to doors, windows, and other work required, but only to provide for fixing those permanent locks and other fastenings to windows, doors, &c., which, with their several screws, &c., will be supplied to the contractor, when he is prepared to receive charge of them, and all that may be damaged or broken in fixing, or from other causes, must be replaced by him, of the same quality and description as those supplied.

The window opening into dining-hall marked C on plan, to be of the width figured thereon, and 6 feet high, to be filled with 1½ inch square framed rising shutters, in two divisions, double hung with lines, weights, and 2 inch iron pulleys, and proper boxed frame, the window board to be 2 inches wider than the wall or partition, and 1¼ inch thick, secured to rough bearers, the shutters to fit close upon it; a fastening to be fixed in the centre, and two 6-inch bolts to fix either divisions up or down.

The ventilators over stairs and kitchen offices to be constructed according to the drawings and description given, to have windows of the size shown or described.

Angle staves ⅞ths of an inch in diameter to all the angles of plastered rooms, except to the windows of infirmary building, which are to have the angles plastered and rounded.

The roofs described on plan to have lead ridges, are to have rolls rounded out of 2 inch square scantling, with proper irons; all gutters to roofs to have 1 inch rough red deal boarding and strong bearers, and all vallies to have ¾ inch red deal boarding, the boarding, in all cases, to be of the width required by the lead. Three-quarter inch red deal boarding, 6 inches wide, in front of dormers, to receive lead apron.

Those roofs drawn to a steep pitch are to be constructed to an angle of 49 degrees, all others to be made to an angle of 35 degrees; all the roofs shown on Sections, or elsewhere, to have projecting rafters, are to have them project 6 inches from the face of the wall.

The privy marked D on plan, to have 1½ inch red deal seat and riser, on strong bearers, with deal skirting, 5 inches wide round top of seat, 1¼ clamped lid, with 3 inch butt hinges. The other privies to be constructed with an oak bearer, 4 by 3 inches, the length of privy, the bearer to be placed 18 inches high, and boarded and ledged, or studded, as shown in Section. The children's privies to have 1½ inch seat, 12 inches high, with holes cut in ditto, as shown in plan.

The partitions described on the plan to be wood partitions, are to be made with 1 inch rough boarding, the joints wrought and rebated, or ploughed and tongued, as described for floors, to be nailed to ledges, or studs, as shown on drawings, which are to be chamfered ⅛th inch on their edges, and of the size of 4 by 2½ inches, and secured to framing of floors or roof. The ledges or studs are not to exceed 3 feet apart; those partitions described on the Sections to be trussed, are intended to carry the floors above them, and to have upright studs, 4 by 3 inches, with heads of the same size, and a sill formed with the joists of floor immediately under it.

The plaster partitions to be made with quarters, 4 by 2½ inches, placed not more than 12 inches apart, to be strongly nailed and braced, and to have beads and sills 4 by 3 inches.

The bond under the several floors to be made to run all round the walls of the building, and to be halved down, so as to make the upper surface level with the tops of girders of floors, where the girders occur, so that the joists of floors can at those ends which go into the wall be notched on the same level as those on the girders, the Section of the building will explain the proposed manner, and where any cross walls occur, and the joists carried through or otherwise, the bond to be placed in the centre of the wall as a chain bond; no bond, where running through openings, is to be cut until the work is carried up, unless by the direction of the clerk of the works. (Size of bond to be 4½ by 3 inches).

The windows of the board-room and master's room, and other plastered rooms, to have the jambs splayed inside, and wood staff beads, ⅞th inch in diameter to ditto, with rounded window boarded on strong bearers (except to the infirmary building, before described.)

All door-frames to be secured to wood bricks, 9 by 4½ by 3 inches, two to be placed at equal heights in the height of doorway, on each side, a sufficient quantity to be at all times supplied to the mason, to whom every assistance is to be given in bedding the bond plates, lintels, templates, &c.

All girders or bearers to have a template inserted in the wall for them to rest upon, to be at least 2 feet long, 6 by 3 inches, and to which they are to be strongly spiked. All girders, tie-beams, &c., to have at least a 9 inch bearing on the walls.

All stairs shown or described on the drawings to be wood, are to have 1¼ inch deal treads and deal risers, with strong carriages and proper linings; the steps to be 9½ inches on tread (exclusive of the rounded nosings), and except where otherwise figured, to have risers 7½ inches deep.

Two-and-a-half inch oak rounded handrail, and 3 inch square and turned newels, and 1¼ inch square bar balusters, 5 inches apart, securely fixed into handrail, and 1½ inch cut string, into which the steps are to be housed.

Nine inch square posts to be placed under the shed buildings, where shown on plan, tenoned into stone blocks and into girders, to carry feet of rafters. Girders to be 9 inches by 9, and mortised for posts; the posts to be chamfered 1 inch on the edges.

The contractor will be supplied with the several articles of ironmongery contained in the list at the end of the specification, but to include the fixing the same, and all other ironmongery described under the section of the Smith's work, which is connected with the Carpenter and Joiner's work; all such ironmongery that is not described in the list before referred to, or contained in the section of Smith's work, is to be provided and fixed by the Carpenter and Joiner.

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Section No. 3.—Slater and Plasterer.

SLATER.

The roofs to be covered with the slates, nails, and battens, and with the lap, for slates, &c., hereafter described; the slates are to be of the best kind, and any which may be considered by the architect, or clerk of the works, to be too thin, or in any ways defective, are to be rejected; the whole are to be sound, and to be nailed in the middle with 2 nails to each slate, and all of a sufficient length to be tailed on the upper battens or laths, to prevent them from being tilted by the wind. The battens are to be cut out of ¾ inch deal, and 2½ inches wide.

Care is to be taken that the roofs which abut against the walls of the buildings are prepared with a tilting fillet, at least 1½ inch high, so as to throw off the water.

The hips are to be cut quite close, and never less than half a full-sized slate to be applied, in order to avoid all small pieces, which are liable to get out of order, the hips and ridges to be covered as hereafter described. The cheeks and gables of dormers to be covered with slates, cut of the size of about 12 inches long by 6 wide; the lower part cut to a pattern either circular or elliptic.

The eaves of slates to project not less than 4½ inches over the walls, and not less than 2 inches beyond the feet of rafters in projecting roofs. Roman cement filleting to be used at all angles, chimney-shafts, &c.; when it is not described on the drawings, to be done with lead.

The slater is to keep the roof in proper order, and repair all damage that may occur, until the building is delivered up, when the whole is to be in perfect order and weather-tight throughout, and to take all care that the slating is not discoloured by mortar or Roman cement, as the work will be required to be kept quite clean.

The underside of all slates that are not described to be ceiled against the rafters, are to be rendered straight and smooth between the battens, except to the roofs of washhouse, kitchen, scullery, and sheds; the underside of those roofs that are ceiled against the rafters are to be rough pointed.

The roofs which have a pitch of 49 degrees, are to have a lap or cover of at least 3 inches below the nail hole. Roofs with a pitch of 35 degrees to have a 3½ inch lap. The hips and ridges, except where shown on drawings to be covered with lead, are to have Cheshire or Staffordshire tiles, or cut ridge stone of approved quality. The slates to be nailed with strong wrought-iron nails, boiled in oil.

The whole of the roofs to be covered with the best Bangor Queen Ton slates, or with Irish slates of equal size and approved quality.

PLASTERER.

The walls of the infirmary, including the surgery and nurse's room, to be plastered, one coat finished smooth on face for whitewash; the master's two rooms on ground floor, and passage between them, and two bed-rooms over ditto, and the board-room and clerk's office, to be plastered two coats and coated; all other internal walls throughout are to be stopped and twice lime whitened, also twice size-white all exposed wood-work to underside of floors, boarded partitions, and other work, not described to be ceiled or painted, and all other timbers of roof and underside of slates where exposed to sight.

The partitions shown or described on the drawings as lath and and plaster, are to receive two coats, and finished same as the adjoining walls; ceilings to be put to the board-room, clerk's office, master's four rooms, and passage on ground floor, surgery, nurse's room, and infirmary building, which are to be lathed, scratched, floated, and coated; the underside of all floors, not described to be plastered, being intended to be whitewashed only. (All lath and plaster ceilings are to be applied either to the underside of floor joists or against the rafters; no ceiling joists being intended to be used).

All lime to be well slacked and free from cores or unburnt stones, and to be mixed with good clean sand, and mixed in proper proportions.

The lime white to the walls of house to be mixed with a due proportion of tallow, to prevent the work rubbing off.

The laths to be all strong, and the nails to be either wrought or cast-iron, and not less than 1 inch long.

Where any plastering is put over wood lintels, or other timber, a good key to be made by crossing pieces of short laths.

The angles to windows of infirmary are to be rounded, and no angle-staves used; where angle-staves are used, they are to have quirks cut.

Section No. 4.—Plumber, Painter, and Glazier.

PLUMBER.

To include all work hereinafter described or shown on the drawings, or that will be found necessary for making them all complete.

The lead to be the best milled, or where cast lead is used, it is to be evenly moulded, of smooth surface, and free from sand or pin holes, and at least half-a-pound to the superficial foot heavier than the weights hereafter described for the milled lead; no cast lead to be used except above the weight of 7 lbs. to the foot superficial.

The lead to gutters is to be closely dressed down to the boarding, and to be of the width shown on the drawings; the highest part of the gutter to turn up at least six inches under the slates, and to turn up at the same level all through, notwithstanding the fall of gutter, which is to be at least 1 inch in 10 feet; the gutters to be 7 lbs. lead to the foot, and laid with 2 inches drip where shown; the narrowest part of the gutters is not to be less than 9 inches wide.

Those roofs which abut against the walls of high building, or against chimney shafts, are, where so described on drawings, to have lead step flashings of 4 lbs. lead, to lay 6 inches on the slates, and turn up 6 inches against the walls, and covered with a top flashing of 6 lbs. lead, 10 inches wide, built in the walls for that purpose, parallel to the inclination of the roof.

The hips of the roofs described on drawings to be covered with lead, are to have the lead 20 inches wide, and 6 lbs. to the foot superficial, closely dressed round the rolls. The hips of the large ventilators over roofs to be laid with 7 lbs. lead of the same width.

All vallies to roofs to be laid with 6 lbs. lead, 18 inches wide, and 16 inches wide to vallies of dormer windows on roof. Step flashings to be put round cheeks of dormers and ventilators, 8 inches wide, of 4 lbs. lead, and the dormers to have aprons in front, of 6 lbs. lead, as drawing.

PAINTER.

The whole of the wood and iron work, except the boarded partitions described in the carpenter's work to be left rough for whitewash, is to be knotted, primed, and finished, three coats internally and four coats externally. The feet of the rafters which project are not intended to be painted; any work which does not properly hold out, to receive the additional coats of paint required.

The work to be finished a plain common colour to be approved.

GLAZIER.

The windows, generally, to be glazed with glass of C C quality, and of the shapes and sizes as shown on drawings.

The windows to master's four rooms, and windows of entrance front, are to have C glass.

All glass fixed in iron lights to be closely fitted, and securely and neatly puttied.

All windows described to have lead lights, are to be executed with the very best strong lead, the lights to be secured to three-eighth round iron bars, fastened with copper ties.

The contractor to be answerable for all windows broken during the execution of the building, and the whole to be given up in a clean and perfect state.

Section No. 5.—*Smith.*

To provide all straps, bolts, and other work, where shown or described on the drawings; the wrought iron to be the best tough metal, and the cast work of good quality and clean mould; also to provide all moulds and patterns required. (Wrought iron straps, 2 inches by $\frac{1}{2}$ inch, to be applied to the feet of principal rafters, and king and queen posts of trusses).

The stone stairs to have $\frac{3}{4}$ square bar balusters, 3 feet 10 inches long, one to each step, and on the landings to be 5 inches apart, and 3 feet 6 inches long, and a half-round handrail, $1\frac{1}{2}$ inch wide, and $\frac{3}{4}$ inch thick, a $1\frac{1}{2}$ inch square wrought newel at the commencement of each stairs, to be let into a strong stone, and to be securely fixed and run with lead; the balusters to be kneed 2 inches at the foot of each, so as to be sunk in the top of tread of steps a sufficient distance from the end to give a strong and secure hold; the balusters to be rivetted into handrail, and sunk into the stone and run with lead; the newel to be set outside the end of step, and the handrail curved to it.

All fireplaces to have chimney bars 2 inches by $\frac{1}{2}$ inch, of a segment form, to go into the walls at least 6 inches in angle fireplaces, or through the jambs where they project and turn up and down 2 inches at each end.

Cast iron gutters, according to drawing, to the eaves of those roofs where marked with a red line on the plan, supported on strong iron brackets, securely fixed in the walls or to the feet of projecting rafters; all joints of spouting to be put together with white lead, and secured by a nut and screw.

Rain water down pipes, unless otherwise described, are to be 3 inches clear diameter, and where marked on plans, with heads of approved pattern and proper shoes at the foot of each; a small cast iron grating to be fixed about two-thirds the way down the head to prevent leaves, &c., getting down. The down pipes to be secured by strong hold-fasts to each length of pipe, which is not to be less in any part than $\frac{3}{16}$ths of an inch thick.

Cast iron columns under beams or girders, where shown or described on plans or sections, with caps and bases to ditto, and with metal 1 inch thick, to rest on solid stone blocks, not less than 9 inches thick, firmly bedded on strong mortar walling.

The contractor to include No.   plain common gratings, 12 inches square, for letting into stone over small cesspools.

The contract to include 2 cwt. of wrought iron, to be used in bolts, nuts, screws, straps, and other work, where directed by the clerk of the works, in addition to that shown or described on the drawings, or contained in the specification.

To provide also No.   cast iron ventilators, of the size of 9 inches by 4 inches, of approved pattern, to be inserted by the mason where directed by the clerk of the works.

The contractor to find all lead necessary for fixing iron work, and fire for heating the same; to include strong wrought iron hinges to the large gates or doors of yards with fastenings, to be executed according to the drawings and descriptions given.

Section No. 6.—*Flagger or Pavior.*

The floors of the several rooms to be either flagged, paved, or otherwise laid as hereafter described, shown, or directed on the drawings.

All rooms marked E on plan are to be flagged, and laid in courses, and bedded and closely jointed in mortar; all the stones are to be closely dressed, and fitted against the walls.

The rooms marked F are to be laid with mortar floors, compounded with the best materials, and mixed in approved proportions of clay, lime, and bullocks' blood, &c.

The several rooms, passages, or other parts marked G on the plans, are to be paved, and to have the stones well rammed and bedded in gravel, and filled in with strong coarse sand, or other materials described.

The floors to be carefully protected until they are quite dry and hard; they are to be laid perfectly level, and in the most approved manner, and to have a foundation of dry and broken materials, at least six inches thick.

Care is to be taken that all the ground on which the flooring is laid is well settled, and rammed all over before the gravel or other bedding materials are used.

The floors of wash-house, kitchen and scullery, &c., to have an inclination towards an iron grating leading to drain, to convey off the water.

The work is to be left quite sound and perfect when delivered up, and all broken stones to be replaced with perfect ones; and any work which has sunk or settled below the proper surface, to be again securely relaid.

Particulars of Ironmongery to be supplied hereafter—the fixing of which only belongs to this Contract.

Norfolk thumb-latches to the ledged doors.
Locks to all doors.
Bolts to ditto.
Hinges to all doors (except to outer yard doors).

General Clauses and Conditions of the Specification of Works.

The foregoing Sections of Works are to be taken to include every detail connected therewith, that is necessary for making the same complete, to include all necessary scaffolding, labour, tools, hoisting tackle, water carrying, and materials, labour implements of every kind that are necessary for performing, executing, and completing the works in the best manner; the scaffolding is to be securely constructed in all parts, to be ample in quantity, and composed of good materials, and constructed to the satisfaction of the clerk of the works, appointed by the Poor Law Commissioners.

The works are to proceed under the inspection and approval of the clerk of the works, and to the entire satisfaction of the architect of the Poor Law Commissioners. The architect and clerk of the works are to have full power to enter upon the premises, or any part of the building, at such time as they may think proper.

The drawings and specifications are to be under the charge of the clerk of the works, and deposited, from day to day, at his office on the premises; they are to be open to the inspection of all persons employed upon the building, who may have occasion to refer to them, and they will be at liberty to copy or take any particulars of such details as they may, from time to time, require; but the drawings and specifications are on no account to be removed from the premises by any person not specially authorised by the architect.

The contractor is to receive, as belonging to the contract, all detail or explanatory drawings, which may, from time to time, be considered necessary by the architect, and which he may sign and furnish to the contractor; and in all cases where figured dimensions or written directions are given on the plans, the same are to be followed and used in preference to the use of the scale.

The several roofs to be constructed according to the pitch or inclination given, and the dimensions for the length of timbers, and for slating, to be ascertained from the width of the several rooms, added to the thicknesses figured or described for the walls.

All materials used in the respective works shall be of the very best quality, and the workmanship thereof executed in the best and most substantial manner. Should materials of any kind be brought upon the premises, which, in the opinion of the clerk of the works, are either unsound, improper to be used, or contrary to the intent and meaning of the contract, the same shall be immediately removed from off the premises, upon notice to that effect being given by him, in writing, to the contractor or his foreman; and in case such notice be not immediately complied with, the clerk of the works will be required to report the fact to the Poor Law Commissioners through their architect. Any works which, in the opinion of the architect, have been improperly executed, shall, upon notice to the contractor, be immediately taken down, or removed, and re-constructed in a substantial manner, and no additional charge shall be made by the contractor for such work.

No materials or timber scantlings, once brought on the building ground, shall be removed from off the premises, on any pretence whatever, unless with the written consent of the architect, or unless they be materials brought there, *bonâ fide*, for the purpose of scaffolding. The materials brought upon the ground are to be considered as belonging to the Poor Law Commissioners, although the value of them is not to be taken into consideration in calculating the advances to which the contractor may, from time to time, be entitled.

The contractor is to make regular weekly payments of wages to the several mechanics, artificers, and labourers, employed by or under him, and punctually to pay weekly to them in money the full amount of their earnings.

Upon notice to the contractor or foreman, by the architect, that a sufficient number of men are not employed on any section of the works, he will be required to provide the same, or on his default within reasonable time, the architect may engage such number of men as are required, and at such amount of wages as, in his opinion, is proper, the amount thereof, and all expenses attending the employment of such men, to be deducted from the amount due to the contractor. Should any combination at any time take place among the workmen for advance of wages, or any other causes, and the same be represented to the Poor Law Commissioners or their architect, the same will be taken into consideration, whether any just ground existed for allowing any extension of time for any delay that may thereby be occasioned to the works.

Any inferior workman employed by the contractor is, upon notice to that effect by the clerk of the works, to be discharged by the contractor.

The contractor is not to underlet in any way the whole or any part of the work, or to do the same by task work, except with the written consent of the architect.

Should any delay arise from the want of a due supply of proper materials, and the progress of the works be thereby interrupted, the architect, either himself or through the clerk of the works, may order or provide the same, and the expenses thereby occasioned may be deducted from the amounts that may be or become due to the contractor.

The contractor is to supply the clerk of the works with all requisite information upon the number of men employed, the state of preparation of the materials, and such information of the kind as may be required of him by the architect or clerk of the works.

The clerk of the works is not to be employed in any way whatsoever by the contractor, or to receive any payment from him for any services connected with the building, but to give every assistance in his power in directing the proper execution of the works; and should the contractor have reason to complain of the conduct of the clerk of the works, in the execution of his duties or otherwise, the contractor will, upon representation of the facts to the Poor Law Commissioners, through their architect, have such redress as they consider him entitled to.

In case any disagreement or dispute should arise during the progress of the works, or after their completion, as to the meaning of the specification and drawings, or relating to any other cause whatever connected with the said contract, the same shall be referred to the architect for the time being,

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and his award shall be final and conclusive upon all matters touching the said contract between the parties.

In case the architect, in consequence of frost or from any other cause, shall order a suspension of the works, such order shall be in writing, and the works shall thereupon be discontinued and carefully covered up with straw, or such other covering or protection as the architect may direct. The works shall be again resumed upon notice to the contractor, who shall be allowed an extension of time beyond the date of his contract, equivalent to the delay occasioned by such suspension of the works.

The contractor is to be answerable for all damage that may happen to the several works until such time as they are delivered up by him, and certified by the architect to be complete; the contractor is to be at the expense of watching and taking due care of the works, and is to remove, from time to time, all rubbish that may accumulate on the ground, and to take the same to such part of the premises as the clerk of the works may direct.

No additional work is to be executed or allowed for, unless done in pursuance of the written direction of the architect; and no omissions from, or alterations in the specified works, are to be made, except by such written direction; and no additions, omissions, or alterations, so directed to be made, are to have any effect in invalidating or annulling the contract. Any additional work that may be necessary in the foundations of the building, and directed to be done, or any work which may be directed by the architect to be omitted from the contract, in not requiring the foundations of the walls to go so deep as specified, is to be taken account of by the clerk of the works; and no foundations are to be covered up without the previous directions of the clerk of the works. The value of all such additional or omitted works is to be ascertained by the architect for the time being, and valued according to a list of prices attached to the articles of agreement; or in case the contractor does not furnish such list, then such valuation is to be made according to the judgment of the said architect, and the value of such extra or omitted work is to be either added to, or deducted from, the amount of the last payment to be made to the contractor on the building contract. All prices for such additional works, being first approved by the architect, must be attached to the contract previous,to the execution of it by the contractor.

No payment is to be made to the contractor, except on the architect's certificate on the value of the work executed, and no certificate to be given for any sum less than one-eighth the amount of the contract; and the several payments are to be made at the rate of 85 per cent. on the value of the work executed, leaving a balance of 15 per cent. to be retained as a guarantee for the goodness and perfection of the works. The reserve of 15 per cent. shall be payable, on the architect's certificate, at the expiration of two months from the completion of the works included in the contract, except the painting and whitewashing of the plastering; but such final payment shall be subject to any abatement which the architect may make for remedying any defects in the works, which, on notice thereof by him to the contractor, shall not be forthwith remedied.

It is, however, to be expressly understood, that the payment of such first instalment is to be contingent on the Exchequer Loan Commissioners having advanced, at the time at which such instalment shall become due, the sum of money which the Poor Law Commissioners have directed the Board of Guardians of the Union to borrow for the erection of the Workhouse; and no delay in the payment of such first instalment shall interfere with the progress of the works, or release the contractor from his obligation to complete them by the time hereinafter named.

The whole of the works are to be completely finished, and ready to be delivered up by the contractor, on the day of ; and in case he shall fail in completing the works contracted for by him on or before the day mentioned, he shall be liable to a deduction from the amount of his contract for every week during which the works shall remain unfinished beyond the before-mentioned time, and such deduction (if made) shall be on the following scale :—

If the whole amount of the contract does not exceed 1,000*l*.	10*l*. per week.
If the same exceeds 1,000*l*., and does not exceed 2,000*l*.	20*l*. per week.
If the same exceeds 2,000*l*., and does not exceed 5,000*l*.	30*l*. per week.
If the same exceeds 5,000*l*.	40*l*. per week.

No. 4.

IRELAND.

Particulars of the Fittings to be provided for the Union Workhouse.

No. 4.
PARTICULARS OF THE FITTINGS TO BE PROVIDED FOR THE UNION WORKHOUSE.

Bedsteads.

@ | £. | s. | d.

To construct No. deal bedsteads, as per sketch, to be of white Norway deals, free from knots, and well and neatly finished. To construct along side-wall at heads of beds, a rail by supported on strong cast-iron brackets, as per sketch, and screwed to deal floor, or let into solid stone blocks in mortar floors, and the iron-work to be run with lead where fixed to the stone.

The bedsteads to be fixed in the long room of each wing (on the ground floor) of the main building, and in the rooms of the infirmary building.

All bedsteads placed in those rooms where there are mortar floors, are to have deal boards nine inches wide, with rounded edges laid on floor, immediately under the feet of bedsteads, to receive the legs. The deal boards to be securely fixed by iron-work to the blocks let in the floor.

Grates and Stoves.

BOARD ROOM AND CLERK'S OFFICE.

Best black front half-register grates, of neat approved pattern, in the board-room and clerk's office, and in the master and matron's apartments, the sides to have freestone coves and linings; also common plain cast-iron grates, with hobs, to the surgery,

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@ £. s. d.

nurse's room, porter's room, and inspector's rooms, in each of the idiot wards, and dormitories in wings of upper floors; all these to have the fire-place lined with good fire-bricks.

Plain stoves of cast-iron to be provided, and fixed in the several day-rooms and dormitories on the ground floor, and to the rooms of infirmary and probationary wards. No. stoves to the large rooms to be of the size of by and No. to the smaller rooms to be of the size of by the stoves all to have large fenders, and sheet-iron open drawers for ashes. The tubing for smoke flues to be six inches clear diameter, to be carried into flue of fire-place with a length of eight feet to each stove, in addition to the bends, &c. The tubing to be cast-iron.

Iron Boilers.

IN WASH-HOUSE.

To provide and fix a cast-iron boiler, with taps, containing gallons, to be made complete with brick-work, and two-inch deal curb on top, to include all iron-work, gratings, &c.; and to include deal top in two thicknesses, cross nailed, hung with wrought-iron hinges, and pulleys and lines for opening lids.

One ditto, ditto, to contain gallons.

IN KITCHEN.

One ditto, ditto, to contain gallons.
One ditto, ditto, to contain gallons.
One ditto, ditto, to contain gallons.

IN PROBATIONARY WARD.

One cast-iron boiler, &c., to contain gallons, with tap.

To include making all flues complete, each flue to have an iron frame and bed for cleaning out, and also a damper to each.

Tables and Forms.

DINING HALL.

No. deal tables, with 1½ inch deal tops, 22 inches wide, feet long, each constructed with 3 inch square-framed legs, and 6 inch framing of 1½ inch deal, as sketch.

No. deal forms, to ditto, feet long, with 1½ inch deal tops 10½ inches wide, with strong framed legs of 1½ inch deal, cut hollow at bottom, as sketch.

SCHOOL ROOM.

No. forms, feet long, with deal 1¼ seats 9 inches wide, 12 inches high, with strong framed legs.

For rooms in general, No. forms, with 1½ deal seats, (as to dining hall,) feet long each.

No. deal tables, with 1½ deal tops, and square framed legs, (as to dining hall). Size of tables by

No. desks, ditto, ditto, as per sketch.

Desk for master, as per sketch.

Dressers.

To fix in the two store-rooms adjoining master's rooms in main building, a dresser 2 feet wide, of 1½ deal, on strong bearers, along the side-wall of each room opposite the doors.

To fix in the store-room (the one on the right-hand side going from master's apartments) adjoining serving-room, a dresser 2 feet wide, as before, across the end of room adjoining serving-room, and along the side opposite the door.

To put 1-inch deal frame to contain a rising shutter, size of 4 feet wide, and 2 feet 6 inches high, and to be secured with bolts, to shut down on dresser, for passing things through to serving-room.

KITCHEN AND SCULLERIES.

To construct a dresser feet long, feet inches wide, of 1½ deal on strong bearers, with 6 rows of 9-inch shelves 1-inch thick. To construct a sink size of by to be placed on strong bearers with two divisions, one to have a plug 1½ inch diameter, and the other a 4-inch square iron grating, both to lead to a drain.

Water Works.

To provide and construct a metal force pump, to be worked by double lever handle, of approved construction, as per sketch, so as to allow the same to be worked on both sides the partition by men or women; the pump to be bore, and to have inch pipe from well, and inch rising main to supply a deal cistern to be fixed in kitchen offices.

The cistern to be lined with 6 lbs. lead sides, and 7 lbs. lead bottom, and constructed with two-inch deal put together with white lead, and to contain gallons, and to have a ¼-inch notice pipe.

From the cistern construct pipes of 1½ bore leading to the wash-house, with 1¼ bib cock; also pipe to kitchen with 1¼ bib cock; also one to each yard for men and women; convey a pipe, and fix a 1-inch bib cock with square handle to turn ditto, and to take on and off; the cock to be fixed against back wall of wash-house and kitchen buildings; also to construct a pipe leading through master's passage to front wards, where a pipe is to be placed in the inside corner of yard of the probationary ward, nearest the door of master's house, with bib cocks with lever moveable handle, as described to the yards for men and women.

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To construct in yard a large rain-water tank, size of by and deep, domed over as cesspools. The rain-water tank to be lined with half brick, bonded in stone, and rendered in cement; the bottom to be laid curviform.

Also to provide and fix a small common lead pump in wash-house, with suction pipe from tank.

Baths.

PROBATIONARY.

To construct a deal bath 1¼ thick of well-seasoned deal, ploughed and tongued at joints, and put together with white lead, to be 5 feet long, 2 feet 6 inches wide, and 2 feet deep, placed at one end of bath-room. One to be placed in each bath-room. The baths to have a 1½ plug, to open into a drain constructed in surface by paving-stones, and leading into cesspools in yards.

Painting.

The names of each room to be painted in black 1-inch capital letters, of Roman character, on the doors of the following rooms on the outside. The letters to be placed about 2 feet below top of door, in the centre of doorway (as regards the width of door), and the letters to be the common proportionate distance from each other.

Particulars of the several Rooms which are to have their Names painted thereon.

EXTERNALLY.

Two Probationary Yards at back of Entrance Building.

Female Probationary Ward, No. 1.
Bath-room.
Male Probationary Ward, No. 1.
Bath-room.

Children's Yards.

Boys' Day and School-room.
Boys' Work-room.
Girls' Day and School-room.

Kitchen Office Yards.

Wash-house.
Kitchen Offices.

Men's and Women's Yards—Female Side.

Female Dining Hall.
Wash-house.
Wash-house Work-room (at the end).
Infirmary.
Female Idiot Wards.

Male Side.

Kitchen Offices.
Male Dining Hall.
Infirmary.
Male Idiot Wards.
Dead-house (in back yard.)

INTERNALLY.

Entrance Front Building.—In Hall Ground Floor.

To Board Room.
Porter's Room.
Female Probationary Ward, No. 2.
Male Probationary Ward, No. 2.

Upper Floor.

Board Room.
Clerk's Office.

Main Building.—Ground Floor.

Master's Room.
Matron's Room.

Where man and wife are appointed, the words "Master's and Matron's Rooms," to be substituted.

Upper Floor.

Master's Room.
Matron's Room.
Clothes Store-room.

Stairs at back of Master's Rooms.

Boys' Room.
Girls' Room.
(On deal board, size of 12 by 6, painted same colour as doors, and fixed against wall)—
Stairs leading to Boys' Dormitories, &c.
Stairs leading to Girls' Dormitories, &c.

Upper Floor.

Boys' Dormitories, No. 1, 2, 3, &c.
Girls' Dormitories, No. 1, 2, 3, &c.

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Principal Stairs in Wings.—Male Side.

Male Wards.
Boys' Rooms.
(On board, as before described), Stairs leading to Male Dormitories.

Female Side.

Female Wards.
Nursery.
(Board and inscription to stairs same as Male Side).

Male and Female Sides.—Upper Floors.

Male Dormitories, No. 1, 2, 3, &c.
Female Dormitories, No. 1, 2, 3, &c.

Serving Room.

Dining-hall (on both doors).
Kitchen (and to Men's Yard).
Wash-house (and to Women's Yard).
Store-room, No. 1. (No. 1. is to be the right-hand door, leading from master's apartments).
Store-room, No. 2.
Mill-room.
Laundry (on door from Wash-house).

In Dining-hall.—On Doors Inside.

Entrance to Female Yard.
Entrance to Male Yard.

Infirmary.—Ground and Upper Floors.—Male Side.

Male Ward, No. 1, 2, 3, &c., beginning at right-hand room on ground-floor.
Surgery.
Nurse's Room.

Female Side.

Female Ward, No. 1, 2, 3, &c.

Idiot Wards.—Male Side.

Inspector's Room.
Male Day-room, No. 1, 2, 3, &c. (on the cells omitting the word "Cells.")

Female Side.

Inspector's Room.
Female Day-room, No. 1, 2, 3, &c.

Shelves.

To put in store-room, on right-hand side of passage leading to serving-room, 4 rows of 9 inch shelves, 1 inch thick, on strong bearers, immediately over the dressers.

To put in clothes store, one pair, 4 rows of shelves, 20 inches wide, over the dresser, and two ends of room, the shelves to be open, made with 1 inch deal spars, 2 inches wide, and 2 inches apart.

To construct in the surgery a deal press, in two heights, size of feet wide, by 6 feet 6 inches high, and deep, the lower to be hung with folding doors in two heights, the inside to be fitted up with shelves and drawers, and to contain not less than drawers.

In Dining-hall.

To construct across the dining-hall a deal 1¼ inch square framed, and bead and butt partition, secured to the beam of roof, and securely fixed against floor by 4 inch square scantling, cut diagonally, and half fixed on each side. The centre to have folding-doors, 6 feet wide, in two widths, to open to the height of the tie-beam. The part above the tie-beam to be sparred with 1¾ spars, 2 inches wide, 1½ apart, fixed in one side of truss over partition.

To provide and fix a bell, weighing lbs., to be fixed on ridge roof, over the passage, between stores leading to the serving-room, to be hung between two 6 inch square oak posts, with weather-boarded top, as per sketch. The exact position to be determined by putting it as near the windows of passage as the truss of the roof occurs, to which the posts are to be brought down for securing them. To include wheel, rope, tubing through roof, &c.

Generally.—The whole of the works to be done in the best manner, and with good seasoned timber, and in accordance with the specification for the erection of the Workhouse, and agreeable to the general clauses and conditions of the specifications and building contract. The tables and forms are not intended to be painted, nor is any of the work, except where so described.

I, the undersigned, do hereby undertake and agree to perform the whole of the before-described works, and to do the same in the best and most permanent manner, and to the entire satisfaction of the architect, and to the Poor Law Commissioners for the time being, agreeable, in every respect, to the conditions of the contract made for the erection of the Workhouse.

Witness my hand, this *day of* 18

Witness,

No. 5.

UNION.	Accommodation provided for	Amount charged by the Contractor for Works done extra the Contract.			Amount certified by the Architect for Works done extra the Contract.			Amount of Deduction from the Charges made by the Contractor.		
		£.	s.	d.	£.	s.	d.	£.	s.	d.
Abbeyleix	500	1,749	4	10	1,324	0	8	425	4	2
Antrim	700	1,449	2	2¾	728	4	8	720	17	6¾
Ardee	600	2,021	16	1½	1,408	0	2½	613	15	11
Armagh	1,000	4,697	2	4	3,322	1	4	1,375	1	0
Athlone	900	2,801	14	5	2,289	17	2	511	17	3
Athy	600	1,792	8	10	988	15	11	803	12	11
Ballina	1,200	2,514	2	8	1,529	8	3	984	14	5
Ballinasloe	1,000	3,779	18	11	2,562	19	1	1,216	19	10
Ballinrobe	800	1,781	13	4½	1,169	0	2¾	612	13	1¾
Ballycastle	300	1,779	3	5	706	17	8	1,072	5	9
Ballymoney	700	1,834	0	9	978	0	0	856	0	9
Ballyshannon	500	1,367	0	0½	618	6	1½	748	13	11
Balrothery	400	1,818	19	1	1,685	2	2	133	16	11
Baltinglass	500	1,656	19	2	1,365	1	5½	291	17	8½
Banbridge	800	3,641	5	5	2,979	8	1½	661	17	3½
Bandon	900	3,091	3	8	1,714	3	8	1,377	0	0
Bantry	600	785	16	5	627	15	8	158	0	9
Belfast	1,000	2,999	3	9½	2,707	3	5½	292	0	4
Boyle	700	2,279	0	4	2,047	17	2½	231	3	1½
Cahirciveen	400	1,073	8	4	736	0	0½	337	8	3½
Callan	600	1,767	3	3½	1,337	17	6½	429	5	9
Carrick-on-Shannon	800	2,928	6	9	2,142	2	3	786	4	6
Carrick-on-Suir	500	2,715	4	0	1,584	16	1½	1,130	7	10½
Cashel	700	1,990	11	6	1,573	18	0½	416	13	5½
Castlebar	700	1,903	19	3	1,303	0	8½	600	18	6½
Castle Derg	200	845	1	10	739	15	0	105	6	10
Castlerea	1,000	1,538	8	3	1,069	15	11	468	12	4
Cavan	1,200	2,434	3	8½	1,600	17	0¼	833	6	8¼
Celbridge	400	1,953	19	3½	1,297	19	5½	655	19	10
Clifden	300	1,415	8	7	990	14	7	424	14	0
Clogheen	500	1,946	19	2	1,525	13	11	421	5	3
Clones	600	2,327	3	4½	1,394	14	11½	932	8	5
Clonmel	600	1,154	14	8	975	9	10½	179	4	9½
Coleraine	700	1,545	5	7	1,245	17	7	299	8	0
Cookstown	600	2,186	19	8	1,172	2	11	1,014	16	9
Cork	2,000	7,896	15	0	6,426	16	8	1,469	18	4
Donegal	500	1,799	10	8	1,249	11	5	549	19	3
Downpatrick	1,000	3,516	12	10	3,118	6	6	398	6	4
Drogheda	800	2,735	11	3	2,220	9	7½	515	1	7½
Dundalk	800	3,556	16	4½	2,418	19	6½	1,137	16	10
Dunfanaghy	300	559	5	1½	363	18	7	195	6	6½
Dungannon	800	2,376	7	9	1,708	2	6½	668	5	2½
Dungarvan	600	3,498	10	8	2,491	1	10½	1,007	8	9½
Dunmanway	400	1,166	16	11	940	14	2½	226	2	8½
Dunshaughlin	400	956	19	10	855	17	8	101	2	2
Edenderry	600	3,170	9	9	2,000	15	5	1,169	14	4
Ennis	800	1,317	9	8	1,023	14	0	293	15	8
Enniscorthy	600	1,170	17	8	462	18	6	707	19	2
Ennistymon	600.	2,105	14	3	1,119	8	6	986	5	9
Fermoy	900	356	16	6	354	14	3½	2	2	2½
Galway	1,000	3,825	3	3½	1,974	16	3¾	1,850	6	11¾
Gorey	500	1,404	4	7½	1,166	9	4½	237	15	3
Gort	500	1,835	5	0	1,108	19	1	726	5	11
Gortin	200	868	12	0	626	17	8	241	14	4
Granard	600	1,948	8	5½	889	19	4½	1,058	9	1
Kanturk	800	4,699	6	2	2,123	2	2	2,576	4	0
Kells	600	1,733	12	10½	1,420	10	10	313	2	0½
Kenmare	500	1,997	16	6	788	2	1	1,209	14	5
Kilkeel	300	1,778	17	5½	1,395	12	4	383	5	1½
Kilkenny	1,300	1,956	2	5	1,788	16	8	167	5	9
Kilmallock	800	2,772	11	1	2,405	13	1	366	18	0
Kilrush	800	1,705	7	2	1,451	16	6	253	10	8
Kinsale	500	2,519	17	10	1,710	16	0	809	1	10

APPENDIX TO REPORT.

No. II.
Appendix to Mr. Gulson and Mr. Power's Observations.

No. 5—*continued.*

UNIONS.	Accommodation provided for	Amount charged by the Contractor for Works done extra the Contract.			Amount certified by the Architect for Works done extra the Contract.			Amount of deduction from the Charges made by the Contractor.		
		£.	*s.*	*d.*	£.	*s.*	*d.*	£.	*s.*	*d.*
Larne	400	2,835	12	5	1,740	10	8	1,095	1	9
Limerick	1,600	5,288	11	10	4,336	13	3	951	18	7
Lisburn	800	1,891	18	0	1,715	8	11½	176	9	0½
Lismore	500	5,818	7	7	1,590	14	6	4,227	13	1
Lisnaskea	500	2,169	12	10½	1,437	11	4	732	1	6½
Londonderry	800	1,831	2	0	1,656	1	5½	175	0	6½
Longford	1,000	4,106	8	1	2,583	18	0	1,522	10	1
Loughrea	800	1,766	10	5	1,510	1	10½	256	8	6½
Lurgan	800	1,814	10	9½	1,667	6	7	147	4	2½
Macroom	600	2,232	0	11	1,499	1	10	732	19	1
Magerhafelt	900	3,260	11	6	2,143	16	0¼	1,116	15	5¾
Mallow	700	7,307	6	2	2,356	14	3	4,950	11	11
Manor Hamilton	500	2,329	12	6	1,069	18	4½	1,259	14	1½
Midleton	800	2,573	1	4	1,936	4	8½	636	16	7½
Mohill	700	2,295	5	9	1,624	16	5	670	9	4
Monaghan	900	3,125	3	4	2,108	18	3½	1,016	5	0½
Mountmellick	800	1,261	12	6	536	18	6	724	14	0
Mullingar	800	1,610	5	0	1,268	10	10½	341	14	1½
Naas	550	3,320	3	10	2,522	9	7	797	14	3
Navan	500	1,280	18	6	925	11	4	355	7	2
Nenagh	1,000	3,387	19	6	1,645	8	7	1,742	10	11
Newcastle	550	3,090	16	11	2,282	13	4½	808	3	6½
New Ross	900	1,775	5	11½	1,410	8	7½	364	17	4
Newry	1,000	4,955	0	6	3,167	7	10	1,787	12	8
Newtownards	600	2,172	4	1	1,774	11	10½	397	12	2½
Newtown Limavady	600	1,158	9	2	914	9	2	244	0	0
Oldcastle	600	2,297	5	5	1,245	17	11	1,051	7	6
Omagh	800	2,965	17	3½	2,174	8	11½	791	8	4
Parsonstown	800	1,997	0	9	1,683	16	0	313	4	9
Rathdown	600	2,363	14	0½	2,005	1	10	358	12	2½
Rathdrum	600	1,908	1	8	1,378	2	10	529	18	10
Rathkeale	660	2,474	10	6½	1,924	12	10	549	17	8½
Roscommon	900	2,494	16	4	1,311	7	7½	1,183	8	8½
Roscrea	700	1,431	1	9½	1,195	3	7	235	18	2½
Scariff	600	2,333	10	6	1,617	15	8	715	14	10
Shillelagh	400	1,744	12	5	1,235	6	8	509	5	9
Skibbereen	800	1,947	1	6½	1,460	12	4	486	9	2½
Sligo	1,200	4,722	12	7½	3,748	9	10	974	2	9½
Strabane	800	3,380	13	10	2,338	1	2½	1,042	12	7½
Thurles	700	2,292	19	0	1,139	14	7½	1,153	4	4½
Tipperary	700	2,488	10	2	1,504	6	4	984	4	10
Tralee	1,000	1,801	6	5	1,291	19	0½	509	6	4½
Trim	500	3,011	14	9	2,153	0	4	858	14	5
Tuam	800	1,416	7	8	1,085	18	7	330	9	1
Tullamore	700	2,741	17	9¾	1,469	13	11½	1,272	3	10¼
Waterford	900	2,602	10	4	2,211	16	10	390	13	6
Westport	1,000	2,768	5	0	1,287	0	10	1,481	4	2
Wexford	600	1,736	14	0	724	18	3½	1,011	15	8½
Total.	..	266,376	6	6½	180,663	11	2½	85,712	15	4

No. III.

No. III.
Letter from W. H. T. Hawley, Esq.

(Copy.) LETTER from W. H. T. HAWLEY, Esq.

MY DEAR SIR, *York, May* 18*th*, 1844.

I now proceed to submit to you the following observations, which have suggested themselves to me on a perusal of the official papers relating to the site of the Tralee Workhouse, which you have done me the favour to forward for my inspection.

In further explanation of my negotiation with Mr. Jeffery Eager, the rejection of whose

APPENDIX TO REPORT.

No. III.
Letter from W. H. T. Hawley, Esq.
No. 3908 D.

site appears to be one of the chief of the charges against me, I beg to state on his letter which he addressed to the Commissioners on the 6th September, 1839, being referred to me, I took the earliest opportunity of calling upon him to inspect the land he offered.

I advert to this, because his letter to the Commissioners of the 6th May, 1840, was calculated to convey the impression that I had neither seen him, or taken the trouble to ascertain his terms, which was far from being the case.

I arrived at Tralee for the first time on the 6th January, 1840. On the 7th, I was employed in holding conferences with owners and occupiers of property, preparatory to the formation of the Union. On the 8th, after holding a large meeting in the Court-House to explain my proposed arrangements, I visited Mr. Eager, and looked minutely over all parts of his premises, receiving from him at the same time a verbal statement of his terms, which I requested him to reduce into writing, and to forward to me, which he afterwards did, in a letter dated the 27th January, 1840, and which I subsequently submitted to the Commissioners. On the 9th I inspected sites offered by Mr. Rohan, Mr. Denny, and others.

My opinion of Mr. Eager's land, and my reasons for considering it unfitted for the purpose, are stated in my letter to you of the 16th instant, and I have nothing further to add on that point. The only further observation I consider it necessary to make upon Mr. Eager's letter of the 6th September, is with respect to the note attached to it by Mr. Stanley, which is addressed to Mr. Eager, and informs him that the Assistant Commissioner in charge of the district would inspect the site after the formation of the Union, and the election of the Board of Guardians; and it appears to have been so addressed to him, more with the view of explaining any delay which might occur in attending to his application, than for the guidance of the Assistant Commissioners. I therefore proceeded in this case as I had invariably done in all others, by commencing my inquiries as soon as I entered the district where the Union was to be formed. Such was the course I pursued at Listowel (the only other Union I formed in Kerry besides that of Tralee), and I had proceeded far in my arrangements there with Mr. Collis for some land belonging to Lord Listowel, before the election of the Guardians took place, precisely in the same manner as I did at Tralee.

The site belonging to Mr. Denny, which in my letter to you of the 10th instant, I stated I had visited, was situate in the town of Tralee, and was totally unconnected with the one offered in his letter of the 1st February, 1840, which as will be seen by the plan attached to it, was perfectly ineligible, having no direct approach from the high road, and being encumbered along its whole frontage by land belonging to another proprietor.

To Mr. Rohan's site I objected, because I foresaw the difficulties which would arise in shutting out the view of the Workhouse from his premises, and the general unevenness of the ground.

Mr. Quill's land not only presented too narrow a frontage for the building in contemplation, but was open to the further objection of the probability that the tenants would refuse to give up possession of the several holdings.

No. 2361 D.

Had either of the foregoing sites offered advantages such as I considered would have justified me in recommending it to the Commissioners, I should have done so; but they all more or less exhibited defects, which could only be properly judged of by the experience of the Assistant Commissioner or the architect; and the objections afterwards raised by the Guardians were founded on hasty and inaccurate conclusions, as to comparative prices, without estimating collateral expenses, such as would have been incurred by levelling uneven ground—difficulty of procuring a sufficient supply of water—adaptation of the Workhouse to an inconvenient locality—exposure to wet and wind—and other circumstances which invariably contribute to create additional cost in erecting a building of this description; and the complaints they made to the Commissioners in their letter of the 7th May, 1840, were not founded on facts, as offers of land were both received and invited by me by public notices, though not by a newspaper advertisement, which I considered unnecessary on my arrival at Tralee.

Mr. Quilt's land possessed every requisite for a workhouse site, and was not open to objection from any reasonable person competent to judge of its capabilities; and after having satisfied myself that his offer was a fair one, considered both intrinsically as regarded its own value, and comparatively as regarded the value of other land of similar quality immediately contiguous, I considered that I was only doing my duty in recommending it to the Commissioners, and thus avoiding the delays and obstructions which would have probably resulted from waiting till the Guardians could have an opportunity of interposing in the selection.

It was these considerations, and these alone, which actuated me in my negociations with Mr. Quill, and they were conducted precisely in the same way with him, as they would have been with any other individual whose land I might have considered eligible, for he was equally as unknown to me as any other person in Tralee, and I neither had nor could have had any reasons for showing him a preference over others. I therefore repel the unjust and unwarrantable insinuation of Mr. Pennethorne "that I was actuated in this transaction by an undue influence arising from political connections," and trust that if my motives have been misconstrued, they may after this explanation be attributed to the right cause, namely, an earnest desire to discharge the duties committed to me, faithfully, zealously, and conscientiously, and not to the unworthy reason which has so unjustly been imputed to me.

I remain, my dear Sir,
Most truly and faithfully yours,
(Signed) W. H. T. HAWLEY.

To G. Nicholls, Esq.
&c. &c.

No. IV.
As to the Mode of introducing the Measure.

No. IV.

EXTRACT from Mr. NICHOLLS's Second Report on the Irish Poor Law, dated Nov. 3, 1837.

As to the Mode of introducing the Measure.

This presents a very important subject for consideration, the early, if not the final success of the measure, depending greatly upon the mode in which it may be established. Some persons consider that it should be introduced gradually and experimentally, whilst others are of opinion that it should, as nearly as possible, be established simultaneously; and it is important to ascertain which of these modes is entitled to the preference.

On a question of this nature, the opinion of the managers of the Dublin Mendicity Institution seems entitled to especial regard, their local knowledge and experience affording them the best means of forming a correct judgment of the temper and habits of the people, as likely to affect the introduction of the measure. In the Report on the Irish Poor Law Bill, to which I have already referred under the fourth head, it is stated "your Committee have learned with "regret, that it is not intended at once to carry into effect the erection of the proposed work-"houses generally through the country, yet your Committee conceive that any other course "will be productive of great inconvenience, causing unequal pressure in places, such as Dublin "and other great towns, where it may be supposed the first establishments will be opened; "whereas by a general, and, as far as may be found possible, simultaneous opening of the "workhouses, not only will such inconveniences be avoided, but the poorer classes be im-"pressed with a much more favourable opinion of the determination of Government to carry the "measure seriously into effect." This opinion of the Committee was subsequently confirmed by the whole body of managers of the Mendicity Institution, whose sentiments it must, therefore, be considered as expressing.

It is certain that most of the difficulties which may arise from dispensing with a law of settlement, will be peculiarly liable to occur whilst the measure is in progress of introduction; but when the Unions are all formed, there will comparatively be little inconvenience to be apprehended, and this constitutes a strong argument for proceeding with celerity in their formation. Another argument in favour of proceeding vigorously in establishing the measure, is adverted to by the managers of the Dublin Mendicity, namely, that it would show the people that the Legislature was in earnest; that there was no halting between two opinions; and that Government was determined to carry out the measure with promptitude and effect. A manifestation of this kind would tend to prevent opposition or difficulty, and to remove them if they occurred. Such an impression, moreover, would go far to reconcile the people to arrangements, which might perhaps be distasteful to them, only because they were new; whereas to proceed slowly with the measure—to establish one or any given number of Unions, and then to wait for the results to be developed before proceeding farther—thus evidently showing that the step was taken as a matter of experiment, and that Government was as ready to go back as to advance—this would certainly strip the measure of the moral influence which it would acquire under the opposite course, and greatly add to the difficulties of its introduction.

Referring to the experience of England, I am warranted in saying that, if the Commissioners had not at the outset proceeded with celerity in establishing the English Unions—if they had hesitated in carrying the new law into effect—if they had paused for the development of results, or waited for the impulse of local opinion, their progress would have been comparatively insignificant; and instead of the efforts which are now making in every Union throughout England and Wales, for restoring the independence, bettering the condition, and renovating the moral character of the labouring classes, the evils and abuses of the old Poor Law system, with its long train of demoralizing consequences, would still have remained, lessened perhaps in bulk, and curtailed of some of its powers of mischief, but still instinct with life, and pregnant with future evil.

Reasoning, then, from the experience of England, combined with the other circumstances before adverted to, it seems difficult to resist the conclusion that the Poor Law measure, when sanctioned by the Legislature, should be carried into operation in Ireland with as little delay as possible, and that it should, moreover, be carried out as a whole, with a view to the final result, and not by piecemeal or experimentally. Some delays of course there unavoidably will be in the creation of so large a machinery, and some portions of the country must of necessity be placed in union before others; for however desirable it may be to have "a simul-"taneous opening of the workhouses" throughout the whole of Ireland, as recommended in the Dublin Mendicity Report, this will be found impracticable, although its desirableness may be kept in view. After the Unions are formed, time will be required for providing the necessary workhouse accommodation, and this will be more readily done in some cases than in others. In many instances, barracks and other large buildings, capable of being converted into workhouses, will probably be obtainable, which will facilitate the commencement of operations, as well as lessen the expense. In the cases where an entirely new workhouse will have to be provided, 12 or 18 months will probably elapse before it will be in a state to be used, and it is only when the workhouse can be brought into operation, as a medium of relief, that the Union will become effective.

There is a subject adverted to in the extract above given from the Report of the Dublin Mendicity Institution which requires some notice. The managers assume that the Unions will be first formed, and the workhouses first opened in Dublin and the other great towns, but this is a point on which the Commissioners will have to decide after full inquiry and investigation, and I am desirous of keeping the question clear for their discretion. In some

APPENDIX TO REPORT.

No. IV.

As to the Mode of introducing the Measure.

cases it may be expedient to begin with the great towns, in others not; and it is important to prevent Dublin, Cork, Belfast, and such places from supposing as a matter of course that they will first be dealt with. Mendicancy now flows into these towns from the neighbouring and distant districts, and every workhouse established in those districts would serve to lessen the influx, by providing relief for the destitute in their own locality. On this account it might seem advisable that the country districts should be first united and provided with workhouse accommodation, in order to keep back the tide of mendicancy, and prevent its undue pressure upon the towns at the outset. In Dublin and the other great towns, moreover, a machinery now exists for providing for the destitute; and it is extremely important that the several Houses of Industry, and the Mendicity and other charitable establishments should be kept up, and managed as at present, until the arrangements under the new law are completed. Any failure in this respect might be attended with serious inconvenience, and would certainly bring a vast amount of suffering upon those who have been accustomed to rely upon these charitable institutions for support.

After the most careful consideration of the question in all its bearings, it is my duty to state to your Lordship my opinion that no time should be lost in giving legislative effect to the Irish Poor Law Bill, and that the measure should then be carried into operation with the least possible delay. If there be danger of failure in any respect, it will be in the period which intervenes between the establishment of the first Union and the formation of the last. When the whole country is in Union and the several local executives formed and in operation, there will then, I believe, be no undue pressure in any quarter that may not be dealt with under the powers vested in the Commissioners; but in the interim, whilst the Unions are in progress of formation, I am sensible that some inconvenience may arise, and it is to lessen the chance of its occurrence that I wish to shorten the period and push forward the formation of the Unions with as much celerity as may be consistent with the safe and orderly completion of so important a measure. If I venture to press this point with unusual earnestness it is not from any doubt of the sufficiency of the workhouse principle in Ireland, when brought fairly and fully into operation; but in order to guard it from an unfair or partial exposure, and to prevent, as far as possible, its being subjected under adverse circumstances, to a pressure that may possibly (I say *possibly*) be thrown upon some one part instead of being spread over the whole of the machinery—for then if this part, possibly too a weak or defective part, should fail under such an unequal pressure, there will not be wanting persons to impugn the whole system, and thus its moral influence may be lessened, if its very existence be not endangered.

No. V.

(Copy.) LETTER from W. G. LUMLEY, Esq.

Poor Law Commission Office,
Somerset House, 17th April, 1844.

No. V.

143 G.
Letter from W. G. Lumley, Esq.

SIR,

I am directed by the Poor Law Commissioners to forward to you the enclosed Form of a Return, which they have required from several of the Unions in England, and I am to request that you will, as soon as possible, prepare a Tabular Return in the same form, showing the costs, &c., of erecting each workhouse in Ireland, and that you will, in preparing that return, pay attention to the instructions contained in the Circular transmitting the Form to the English Unions, which is annexed to the Form.

I am, Sir,
Your most obedient Servant,
(Signed) W. G. LUMLEY,
Assistant Secretary.

Mr. C. T. Walmesley,
Poor Law Commission Office, Dublin.

(Copy.) LETTER from A. MOORE, Esq.

Poor Law Commission Office,
Dublin, 31st May, 1844.

143 G.
Letter from A. Moore, Esq.

SIR,

In pursuance of instructions in a letter from the Board in London, dated the 17th ultimo, I have the honour to transmit the enclosed statement, which has been prepared, of the cost of the workhouses in Ireland.

I have the honour to be, Sir,
Your very obedient Servant,
A. MOORE, *Chief Clerk.*

E. Chadwick, Esq., Secretary,
Poor Law Commission, London.

TABLE of the Cost of Erecting the Union Workhouses in Ireland, and of the Sites thereof.

I.—*Unions in which the Accounts have been certified.*

UNIONS.	Dimensions of the Workhouse Site. a. r. p.	Amount paid for the Site, including the Cost of Conveyance. £ s. d.		Amount of the Original Contract for Building the Workhouse. £ s. d.	Amount of Fixtures, Fittings and Extra Works, not included in Contract. £ s. d.	Amount paid to Clerk of Works, and for Ironmongery and Incidental Expenses. £ s. d.	Gross Amount paid out of Loan for the Cost of the Building and Site. £ s. d.	Number of Paupers which the House is calculated to contain.	Amount per Head of the Gross Cost of the Building and Site. £ s. d.	REMARKS.
Abbeyleix	5 3 21	127 15 8	Annual rent . 0 12 8½	8,850 0 0	1,462 15 0ᵃ	383 14 6	7,829 2 9	600	13 13 1	ᵃ Includes 138*l.* 12*s.* 4*d.* for boundary wall and gate piers.
Ardee	6 3 24	71 15 7	,, ,, 18 4 4½	6,173 0 0	1,896 8 10ᵇ	427 4 6	7,570 8 5	600	12 12 4	ᵇ Includes 438*l.* 6*s.* 8*d.* for boundary walls, stables, &c.
Armagh	7 0 27	1,366 13 0	. . .	7,200 0 0	3,442 1 4	367 0 7	11,356 0 8	1,000	12 7 1	
Athlone	7 2 24	836 4 3	. . .	7,500 0 0	2,289 17 2	258 13 5	10,901 14 10	900	12 2 2	
Athy	6 2 4	78 19 6	. . .	6,818 0 0	788 15 11	304 8 3	8,010 0 9	600	11 10 4	
Bailieborough	6 0 0	924 12 0ᶜ	. . .	6,800 0 0	2,361 1 9	337 13 8	8,035 7 3	550	14 17 2	ᶜ The payments not finally completed, part of the expenses included in this item are therefore estimated.
Ballina	6 0 15	155 10 1	. .	9,400 0 0	1,529 8 0	345 4 1	12,008 2 5	1,200	10 0 0	
Ballinasloe	5 3 3	136 1 11	Annual rent . 10 13 0	7,500 0 0	2,382 10 1ᵈ	328 14 7	10,000 1 7	1,000	10 12 0	ᵈ Includes 258*l.* 18*s.* 6*d.* for wall, railing, and gates.
Ballinrobe	6 1 26	36 18 7ᵉ	. . .	7,000 0 0	1,169 0 2	277 11 0	8,485 0 0	800	10 12 7	ᵉ Law costs for site not yet paid, but amount estimated.
Ballycastle	5 3 29	647 10 2	. . .	3,875 0 0	842 0 4ᶠ	273 11 4	5,638 10 10	300	18 15 10	ᶠ Includes gates and railing.
Ballymoney	5 0 0	489 3 4	. . .	6,185 0 0	678 0 0	350 14 10	7,618 10 2	710	10 5 1	
Ballyshannon	5 0 0	82 13 4	Annual rent . 13 10 0	5,390 0 0	610 0 1	283 18 10	6,817 4 3	500	12 14 10	
Balrothery	5 1 14	70 2 7	,, ,, 16 13 7	4,945 0 0	1,086 2 2ᵍ	217 2 0	6,321 7 0	400	17 2 4	ᵍ Includes 19*l.* 7*s.* 6*d.* for stable and fence.
Baltinglass	7 2 11	20 8 3	,, ,, 23 10 3	5,750 0 0	1,769 3 1ʰ	310 0 0	7,781 18 1	540	15 11 2	ʰ Includes 528*l.* 1*s.* 6*d.* for stables, shed, boundary wall, cutting gates and piers.
Banbridge	5 1 11	442 11 4ⁱ	. . —	9,300 0 0	2,079 8 1ᵏ	313 4 7	10,997 4 6	800	13 10 11	ⁱ Law costs for site not yet paid, but amount estimated. ᵏ Includes 1381*l.* 7*s.* 11*d.* for boundary wall and gates.
Bandon	5 2 26	179 0 2	Annual rent . 14 10 6	6,600 0 0	1,714 3 0	310 10 0	8,804 8 7	900	9 15 1	ˡ The payments not finally completed, part of the expenses included in this item are therefore estimated.
Bantry	6 0 8	579 0 0ˡ	.	5,950 0 0	627 15 6	314 10 3	7,502 15 11	600	12 10 0	
Belfast	15 0 0	6,228 10 9	Annual rent . 26 12 2	7,000 0 0	3,007 10 2ᵐ	209 0 5	13,460 12 7	1,000	13 0 0	ᵐ Includes 311*l.* 7*s.* 6*d.* for roadway and 1158*l.* 6*s.* 8*d.* for boundary wall and other works.
Boyle	6 0 0	720 4 4	,, ,, 30 0 0	6,665 14 0	2,047 11 2ⁿ	230 1 2	9,297 10 8	700	15 4 6	ⁿ Includes 302*l.* 2*s.* 6*d.* for boundary wall, railing and gates.
Cahirciveen	0 1 2	3,082 14 0	. . .	2,547 10 0	736 0 0	153 0 10	6,520 11 10	400	16 0 5	
Callan	5 1 26	780 1 2	. . .	5,500 0 0	1,437 17 8ᵒ	245 0 2	7,963 1 10	600	13 5 5	ᵒ Includes 233*l.* 8*s.* 4*d.* for boundary wall, gate, and stables.
Carrick-on-Shannon	6 3 2	10 14 4	Annual rent . 21 2 0	7,050 0 0	2,141 2 3ᵖ	385 1 0	9,553 16 4	800	11 19 5	ᵖ Includes 170*l.* 4*s.* 7*d.* for boundary wall and gates.
Carrick-on-Suir	0 1 12	74 10 0	,, ,, 47 14 6	5,150 0 0	1,884 10 1ᵠ	318 4 3	7,113 10 0	500	14 5 6	ᵠ Includes wall to road.
Cashel	6 3 0	234 10 7	,, ,, 34 0 0	6,510 0 0	1,521 18 0	811 16 2	7,030 10 0	700	10 19 0	
Castlebar	7 0 0	43 10 2	,, ,, 17 0 4	6,100 0 0	1,352 0 8	300 14 3	7,849 0 1	700	11 7 2	
Castlederg	3 1 34	35 4 10	. .	6,150 0 0	2,130 0 10ʳ	107 11 2	8,423 2 10	300	11 4 3	ʳ Includes 226*l.* 11*s.* 10*d.* for yards, boundary fences, entrance gate, &c.
Castlerea	0 0 0	709 13 0	. . .	8,095 0 0	1,800 15 11	329 16 0	10,081 0 1	1,000	10 13 7	
Cavan	0 0 0	681 4 7	. .	10,600 0 0	1,600 17 0	312 14 1	13,301 15 8	1,200	11 3 2	
Celbridge	5 0 0	323 0 2	.	4,600 0 0	1,881 1 0ˢ	671 11 11	7,100 13 7	470	15 2 3	ˢ Includes 150*l.* 4*s.* for stabling shed, boundary wall &c.
Clifden	4 1 17	23 7 0	Annual rent . 4 0 0	1,600 0 0	680 14 7	212 0 4	3,650 7 8	200	16 8 3	
Clogheen	5 0 31	53 4 0	,, ,, 12 1 0	5,100 0 0	1,533 11 11ᵗ	311 12 4	7,111 14 8	500	14 5 1	ᵗ Includes 142*l.* 15*s.* 3*d.* for boundary wall, gate, and fence.
Clones	0 0 0	354 8 2	. .	5,710 0 0	1,301 11 11	292 2 4	7,660 17 0	600	11 9 6	
Clonmel			Annual rent 21 1 8½	7,595 0 0	1,591 6 7ᵘ	87 2 7	9,[illegible] 8 1	601	[illegible] 17 4	ᵘ Includes 333*l.* 15*s.* 8*d.* for enlarging the Hospital.
Coleraine	6 3 29	763 10 4		6,870 0 0	1,335 11 1	207 15 1	9,317 9 6	700	13 0 2	
Cookstown	4 1 0	16 6 0	Annual rent . 10 1 7½	6,250 0 0	1,341 7 6	326 8 2	8,918 3 8	500	11 11 3	

Table of the Cost of Erecting the Union Workhouses in Ireland and of the Sites thereof—*continued.*

I.—*Unions in which the Accounts have been certified*

UNIONS.	Dimensions of the Workhouse Site	Amount paid for the Site, including the Cost of the Conveyance.			Amount of the Original Contract for Building the Workhouse.	Amount of Fixtures, Fittings, and Extra Works not included in Contracts.	Amount paid to Clerk of Works, and for Ironmongery and Incidental Expenses.	Gross Amount paid out of Loan for the Cost of the Building and Site.	Number of Paupers which the House is calculated to contain	Amount per Head of the Gross Cost of the Building and Site.	REMARKS.
	a. r. p.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
Cootehill	0 8 2	740 2 4[*]			7,100 0 0	3,074 3 5	319 1 11	11,502 7 9	800	14 7 8	[*] Law costs for site not yet paid, but amount estimated.
Cork	12 0 0	1,446 6 8	Annual rent	53 13 10	12,600 0 0	4,603 3 0	331 13 0	19,183 2 5	2,000	9 11 6	
Donegal	6 2 10	295 13 7[†]			5,795 0 0	1,249 11 5	260 7 4	7,550 1 4	500	15 3 2	[†] Law costs for site not yet paid but amount estimated.
Downpatrick	11 1 30	1,393 5 4			7,500 0 0	3,118 0 0[a]	323 0 0	12,333 16 7	1,000	12 6 7	[a] Includes 691*l.* 10*s.* for boundary wall and gate
Drogheda	7 2 11	84 2 6	Annual rent	82 14 0	7,100 0 0	2,465 2 7[a]	235 12 4	9,884 17 5	500	19 7 1	[a] Includes 244*l.* 13*s.* for steaming apparatus, washing troughs &c.
Dublin, North		8 15 0	,, ,,	19 7 0	4,316 0 0	2,628 5 6[b]	185 16 2	7,646 5 4	2,000	3 16 0	[b] Includes 341*l.* 13*s.* 3*d.* for fittings, altar enclosures, and wall
South		8 15 0			5,863 18 9½	4,327 12 9½[c]	74 0 0	10,618 0 4	2,000	5 6 2	[c] Includes 453*l.* 17*s.* 7*d.* for fittings and wall
Dundalk	0 1 17	393 16 11			6,230 0 0	2,727 16 6[d]	341 10 0	9,153 0 10	800	11 6 0	[d] Includes 32?*l.* 18*s.* 7*d.* for fitting up basement as a stable and boundary wall.
Dunfanaghy	0 0 0	85 0 0[e]			3,900 0 0	200 2 0	298 12 6	4,392 17 0	300	14 18 0	[e] Law costs for site not yet paid, but amount estimated
Dungannon	0 0 0	31 4 7	Nominal annual rent.	34 0 0	6,650 0 0	2,170 17 6[f]	386 12 2	9,178 13 10	800	11 0 5	[f] Includes 482*l.* 15*s.* for boundary wall and other works.
Dungarvan	4 3 26	248 3 7	Annual rent.	24 13 0	6,490 0 0	2,637 5 10[g]	256 8 6	9,632 17 11	600	16 12 4	[g] Includes 430*l.* for boundary wall, stables, and shed.
Dunmanway	6 0 0	460 0 7			5,210 0 0	943 14 2[h]	225 14 1	6,842 14 10	400	17 2 1	[h] Includes 38*l.* 15*s.* 3*d.* for stable.
Dunshaughlin	5 0 0	290 11 3			4,938 0 0	1,342 3 6[i]	234 1 7	6,795 7 7	450	15 19 9	[i] Includes 148*l.* for fence, stables, and shed
Edenderry	6 1 36	340 0 0[k]			5,300 0 0	2,600 15 6[l]	293 2 8	7,033 19 1	600	13 3 7	[k] Law costs for site not yet paid but amount estimated [l] Includes 6?*l.* 8*s.* 10*d.* for fence.
Ennis	0 0 0	27 12 1	Annual rent.	26 0 0	6,100 0 0	1,400 3 7[m]	235 11 8	8,292 0 10	800	10 7 0	[m] Includes 234*l.* 6*s.* 11*d.* for shed, boundary wall, and gate
Enniscorthy	5 0 23	380 0 0			6,000 0 0	1,178 17 5	310 9 3	7,418 0 8	600	12 0 7	
Ennistymon	0 0 0	174 11 7	Annual rent	21 0 0	6,610 0 0	1,116 0 0	317 17 0	8,211 17 1	600	11 15 0	
Fermoy	0 2 28	2,815 2 2			3,361 13 0	903 0 0	116 0 0	7,098 3 4	900	7 17 0	
Galway	7 3 30	1,[illegible]01 18 4			8,175 0 0	2,130 7 3[n]	314 15 11	11,822 1 0	1,000	11 17 0	[n] Includes 10?*l.* for boundary wall and entrance gate
Gorey	7 0 0	19 15 1	Annual rent.	22 12 0	5,675 0 0	1,400 10 4[o]	303 0 2	7,399 0 7	500	14 15 11	[o] Includes 234*l.* 10*s.* for stables, entrance wall, and fence.
Gort	7 1 12	..	,, ,,	32 1 4	6,310 0 0	1,108 19 1	332 4 5	8,781 3 10	500	13 11 7	
Glin	3 0 16	100 15 7			2,690 0 0	626 17 8	154 10 2	3,870 3 1	210	18 7 0	
Granard	0 1 20	475 0 0[p]			5,925 0 0	880 10 4	391 5 5	7,581 3 0	600	12 16 5	[p] Law costs of site not yet paid, but amount estimated.
Kanturk	6 0 0	20 7 11	Annual nominal rent	5 0 0	6,800 0 0	[illegible],123 2 2	676 15 0	9,231 5 4	800	11 10 6	
Kells	0 0 0	614 0 0			5,970 0 0	1,420 10 10	263 15 6	8,268 15 0	600	14 2 11	
Kenmare	0 0 0	130 17 4			5,315 0 0	788 2 1	328 17 10	6,562 14 0	500	13 2 0	
Kilkeel	7 2 33	551 16 3	Annual rent	1 13 5½	4,050 0 0	1,388 12 4	245 3 10	6,235 12 5	300	20 14 6	
Kilkenny	0 3 21	1,678 1 11			[illegible]	1,788 10 8	326 16 7	13,490 10 2	1,300	10 7 7	
Kilmallock	7 1 26	698 7 10			7,309 0 0	2,837 17 11	221 6 2	10,756 11 11	800	13 8 10	
Kilrush	0 0 0	824 8 11			6,300 0 0	1,411 10 6[q]	270 0 3	8,355 14 8	600	13 13 10	[q] Includes 100*l.* 17*s.* 7*d.* for boundary wall.
Kinsale	0 0 0	171 12 1	Annual rent	10 10 10	6,665 0 0	1,710 10 0[r]	348 12 0	9,131 0 7	500	18 5 2	[r] Includes 60*l.* for road in entrance building.
Larne	1 0 37	329 0 7			4,650 0 0	1,840 10 0[s]	197 5 4	7,005 11 7	400	18 0 3	[s] Includes 36*l.* 12*s.* 6*d.* for yams and gates.
Limerick	11 1 14	190 11 6	Annual rent.	70 0 0	16,000 0 0	5,036 17 1[t]	278 12 11	15,415 1 0	1,600	9 12 5	[t] Includes 1,036*l.* 0*s.* 4*d.* for boundary wall and road entrance lodge, additional hospital buildings, wall, &c.
Lisburn	0 0 0	723 0 0[u]			6,500 0 0	1,016 8 11[v]	347 0 0	6,087 18 5	600	11 7 2	[u] Law costs for site not yet paid, but amount estimated [v] Includes 100*l.* for entrance gates
[illegible]									500	13 10 0	[w] Includes fence and plans.

Lisnaskea . . .	0 1 20	368 18 11		6,663 0 0	1,800 1 8	388 18 10	7,885 17 3	580	13 10 1	a Includes 30*l.* for boundary wall.
Listowel . . .	0 0 0	237 15 3		6,380 0 0	1,040 10 10	431 13 15	8,114 5 11	700	11 11 4	* Includes 366*l.* 14*s.* 2*d.* for additions to workhouse, enclosing grave and dung yards &c.
Londonderry . .	0 0 0	337 3 11		6,700 0 0	1,220 16 7	234 10 10	8,822 13 4	300	12 3 0	
Longford	0 3 22	44 4 0	Annual rent . 32 0 0	7,000 0 0	2,583 10 0	290 17 0	9,915 0 2	1,000	9 16 6	
Loughrea	0 2 2	36 14 0	,, ,, 12 13 7	6,260 0 0	1,510 1 10	282 1 3	8,700 17 7	800	10 10 8	
Lurgan	0 0 0	313 2 0		6,120 0 0	1,685 15 11 b	253 5 4	8,381 19 0	800	10 11 0	b Includes road and fence, and part of cost of boundary wall.
Macroom	0 0 0	705 1 0		6,600 0 0	1,439 1 10	265 10 7	8,350 13 11	600	13 14 7	
Magherafelt . .	0 0 0	25 0 0 c	Annual nominal rent. 0 0 0	6,609 0 0	1,280 14 0	303 0 3	8,217 14 0	970	10 4 0	c Law costs of site not yet paid, but amount estimated
Mallow	0 0 0	74 19 2	Annual rent . 3 3 3	6,090 0 0	2,841 8 2 d	418 15 5	9,423 2 10	700	13 8 2	d Includes 464*l.* 12*s.* 11*d.* for boundary wall, fence, &c.
Manorhamilton .	5 1 10	54 17 11	,, ,, 11 10 11	5,372 0 0	1,010 18 4 e	341 7 2	6,841 3 5	500	13 13 7	e Includes 117*l.* 1*s.* 1*d.* for boundary wall and gate
Midleton . . .	7 0 0	..		8,853 0 0	2,086 4 6 f	323 18 0	11,263 3 2	500	21 12 7	f Includes 154*l.* for boundary wall.
Milford	6 1 3	54 0 0	Annual rent 15 10 0	6,710 0 0	1,624 10 6	286 7 8	8,665 10 0	700	12 7 6	
Monaghan . . .	7 2 4	920 17 1		6,330 0 0	2,400 16 3 g	278 4 8	10,073 18 1	900	11 3 10	g Includes 281*l.* 18*s.* for boundary wall.
Mountmellick .	0 0 0	30 8 0	Annual rent 37 1 3	6,915 0 0	856 10 0	428 7 3	8,060 13 0	800	10 2 0	
Mullingar . . .	10 2 11	616 6 11		7,240 0 0	1,288 10 10	389 15 0	9,532 7 6	800	12 0 11	
Naas	5 1 14	83 5 0	Annual rent . 26 12 7½	6,500 0 0	2,026 6 9 h	325 5 7	8,936 12 10	550	16 5 0	h Includes 509*l.* 17*s.* 2*d.* for boundary wall, entrance gates, stables, &c.
Navan	0 2 22	330 14 11		5,700 0 0	925 11 4	264 2 0	7,440 0 0	500	14 17 11	
Nenagh	7 0 0	32 10 2	Annual rent . 40 0 0	8,820 0 0	1,045 8 7 i	600 2 2	10,364 0 11	1,000	10 7 3	i Includes 102*l.* 0*s.* 7*d.* for boundary wall and gate.
Newcastle . . .	5 0 0	271 17 5		6,860 0 0	2,438 0 4 k	254 8 2	9,722 14 11	550	17 14 5	k Includes 138*l.* 16*s.* for boundary wall.
New Ross . . .	10 0 5	198 10 0	Annual rent 43 0 3	7,800 0 0	1,463 10 1	273 0 6	9,535 10 6	900	10 11 10	
Newry	7 2 7	1,200 0 0		7,100 0 0	2,267 7 10 l	279 1 0	11,846 10 1	1,000	11 17 3	l Includes 164*l.* 15*s.* 1*d.* for road, stable, and wall.
Newtownards . .	6 1 8	365 3 2		4,835 0 0	1,274 11 10	266 17 5	7,736 12 5	600	12 17 10	
Newtown Limavady	7 0 14	372 5 0		5,092 0 0	914 0 2	258 0 2	6,636 14 6	500	12 7 10	
Oldcastle . . .	7 1 6	532 15 1		6,675 0 0	1,246 17 11	333 18 0	8,787 11 0	600	13 13 10	
Omagh	0 0 0	24 13 6	Annual rent . 30 0 0	6,637 0 0	2,174 0 11	234 0 2	9,070 3 2	800	11 4 8	
Parsonstown . .	6 3 5	243 13 2	,, ,, 6 4 0	6,009 0 0	1,683 10 0	316 11 4	8,445 10 6	600	11 10 1	
Rathdown . . .	0 0 0	17 2 2	,, ,, 49 12 0	6,300 0 0	2,745 5 1 m	240 5 0	9,302 13 0	600	15 10 0	m Includes 508*l.* 3*s.* 1*d.* for boundary-wall, gate, stables, and shed.
Rathdrum . . .	6 1 34	18 4 4	,, ,, 18 18 6	6,600 0 0	1,378 0 10	262 17 1	8,260 6 2	600	13 15 3	
Rathkeale . . .	0 0 0	620 2 10		6,656 0 0	1,924 12 10 n	210 18 10	9,351 14 6	660	14 3 8	n Includes 146*l.* 3*s.* 11*d.* for road and fence.
Roscommon . . .	7 1 0	34 5 8	Annual rent . 48 12 7	7,300 0 0	1,511 7 7	385 2 1	9,230 15 4	730	10 0 1	
Roscrea	0 0 0	611 4 0		6,700 0 0	1,495 15 0 o	277 13 4	8,124 12 0	700	13 0 4	o Includes 200*l.* for boundary wall.
Scariff	0 0 0	400 4 8		6,400 0 0	1,617 15 6 p	229 12 4	8,564 12 8	650	14 9 1	p Includes 167*l.* 9*s.* 5*d.* for boundary-wall.
Shillelagh . . .	6 1 36	21 16 2	Annual rent . 0 0 0	6,309 0 0	1,716 12 1 q	240 19 2	7,257 0 5	400	18 2 10	q Includes 480*l.* 6*s.* 3*d.* for stables, boundary-wall, &c.
Skibbereen . . .	0 0 0	212 10 5		7,000 0 0	1,343 0 4	390 10 11	8,945 16 8	800	11 11 1	
Sligo	0 0 0	21 17 3	Annual rent . 50 0 0	6,160 0 0	5,718 0 10	337 10 10	13,011 17 11	1,200	11 0 2	
Strabane . . .	0 1 11½	161 1 11		6,895 0 0	2,440 0 2	274 14 2	9,770 5 3	800	12 4 3	
Thurles	5 2 0	1,105 14 6		6,840 0 0	1,139 14 7	673 3 9	9,418 12 0	700	13 9 0	
Tipperary . . .	0 0 0	100 7 5	Annual rent . 25 4 0	6,240 0 0	1,635 0 10	240 7 7	8,201 4 10	750	10 18 8	
Tralee	10 0 0	30 1 10	,, ,, 62 0 0	8,537 0 0	1,291 10 0	331 2 0	10,210 4 7	1,000	10 4 0	
Trim	6 1 36	594 1 0		6,750 0 0	2,133 0 4	282 6 2	9,759 7 6	500	17 10 8	
Tuam	7 1 3	840 0 1	Annual rent 10 1 11½	6,700 0 0	1,885 10 7	645 10 10	9,082 6 0	900	10 17 0	
Tullamore . . .	0 1 7	750 0 1		6,030 0 0	1,406 13 11	290 15 5	8,438 18 0	700	12 0 0	
Waterford . . .	0 0 25½	1,230 17 0		7,640 0 0	2,211 10 10 r	264 0 2	11,343 3 0	900	12 12 0	r Includes 95*l.* 2*s.* 7*d.* for boundary-wall, railing, and gates
Westport . . .	7 1 36	36 19 0	Annual rent . 14 0 6	7,800 0 0	1,454 15 1 s	351 4 0	9,641 16 7	1,000	9 12 9	s Includes 107*l.* 12*s.* 3*d.* for rain gates, railing, and stone piers.
Wexford . . .	7 0 0	13 13 1	,, ,, 58 10 0	5,700 0 0	724 16 8	248 10 3	6,757 1 7	600	11 5 3	
		50,464 13 10	Gross Annual rent } 1,310 3 3½	720,218 2 3½	196,621 10 7½	33,660 0 1	1,011,490 10 0	84,300	11 19 8	Average cost per head.

31st May, 1844.

TABLE of the Cost of Erecting the Union Workhouses in Ireland, and of the Sites thereof—*continued.*

II.—*Unions in which the Accounts have not been certified and closed.*

UNIONS.	Dimensions of the Workhouse Site.	Amount paid for the Site, including the Cost of the Conveyanc.		Amount of the Original Contract for Building the Workhouse.	Amount of Extra Works.	Amount paid to Clerk of Works, and for Ironmongery and Incidental Expenses.	Amount paid for Boundary Wall, Stables, &c.	Gross Amount paid out of Loan for the Cost of the Building and Site.	Number of Paupers which the House is calculated to contain.	Amount pe Head of the Gross Cost of the Building and Site.
	A. R. P.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
			Annual rent							
Antrim	6 0 13	586 16 1	4 12 3	5,580 0 0	..	388 6 8	..	..	700	..
Ballymena	6 0 4	723 13 3	..	6,000 0 0	..	418 19 5	..	..	900	..
Carlow	7 2 19	1,099 6 4	7 19 8½	9,000 0 0	..	403 13 7	..	..	800	..
Carrickmacross	5 3 28	731 19 11	1 19 3	5,000 0 0	..	205 0 1	..	..	500	..
Castleblaney	8 1 20	155 14 8[a]	11 13 0	6,150 0 0	..	306 3 8	..	..	600	..
Clogher	6 2 13	371 9 6	..	4,999 15 0	..	305 13 5	..	..	500	..
Enniskillen	9 0 0	1,042 0 0[b]	..	8,750 0 0	..	366 9 2	..	..	1,000	..
Glenties	..	75 0 10[b]	..	5,500 0 0	..	260 15 9	..	..	500	..
Inishowen	6 0 0	330 18 2	..	6,200 0 0	..	390 5 4	..	..	600	..
Killarney	8 0 0	25 0 0[b]	..	7,825 0 0	..	387 11 0	..	..	800	..
Letterkenny	4 0 35	505 0 0[b]	..	5,790 0 0	..	242 5 6	..	..	500	..
Lowtherstown	5 0 35	722 19 0[b]	..	4,950 0 0	..	351 14 3	..	..	400	..
Milford	6 0 0	346 15 0[b]	..	5,120 0 0	..	116 12 9	..	..	400	..
Stranorlar	5 0 0	36 11 0[b]	..	5,240 0 0	..	295 18 6	..	..	400	..
Swineford	6 0 0	570 4 5[b]	..	7,100 0 0	..	299 18 11	..	..	700	..

[a] The payments not finally completed; part of the expenses included in this item are, therefore, estimated. Negotiations for taking portion of the site o lease not complete.

[b] Law costs of site not yet paid, but amount estimated.

31*st May*, 1844.

APPENDIX
TO
REPORT.

No. VI.
Letter from
W. G. Lumley, Esq.

No. VI.

(Copy.)

LETTER from W. G. LUMLEY, Esq.

Poor Law Commission Office,
Somerset House, 12*th February,* 1844.

SIR,

I am directed by the Poor Law Commissioners to transmit to you the accompanying Form, in which they request you to insert the cost and other required particulars of the Union workhouse, and to return it to the Commissioners as early as convenient.

The Commissioners wish that in the column headed "Amount of Extra Works," should be included all the fixtures and permanent fittings, such as Boilers, Grates, Stoves, Pipes for conveying water, Tables, Forms, and Bedsteads.

Furniture, and other articles of a less durable nature, are not to be included.

Where a site has been purchased, the cost and the extent or number of acres must be stated separately.

I am, Sir,
Your most obedient Servant,
(Signed) W. G. LUMLEY,
Assistant Secretary.

The Clerk to the Guardians.

Union.

The Cost of the erection of the Union Workhouse and the Site thereof.

Dimensions of the Workhouse Site.	Amount Paid for the Site, including Cost of the Conveyance.	Amount of the original Contract for Building the Workhouse.	Amount of extra Work.	Gross Amount of the Cost of the Building and Site.	Number of Paupers which the House can accommodate, as fixed by the Poor Law Commissioners.	Amount, per Head, of the Gross Cost of the Building and Site.

Dated 1844. (Signed)

Clerk to the Guardians.

No. VI.—*continued.*

Cost of Erection, &c., of the under-mentioned Workhouses.

UNIONS.	Dimensions of the Site of the Workhouse.	Amount Paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Extra Works.	Gross Amount of the Cost of the Building and Site.	Number of Paupers which the House can accommodate, as fixed by the Poor-Law Commissioners.	Amount per Head of the Gross Cost of the Building and Site.
		£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
Abingdon	12 acres	629 13 2	7,520 0 0	2,854 0 0	11,003 13 2	380	29 0 0
Ampthill	2a. 2p.	341 18 0	5,925 0 0	1,818 0 8	8,084 18 8	460	17 10 7¼
Ashford, East	181 ft. by 187 ft. and 4a. 2r. 19p.	25 12 0 3 1 7 Quit Rent	4,164 0 0	2,231 14 5	6,421 6 3	380	16 17 11½
Basingstoke	5 acres	289 12 6	5,700 0 0	1,172 19 4	7,162 11 10	230	32 1 10
Bath	5 ,,	622 0 0	6,440 0 0	6,788 0 0	13,850 0 0	Assumed 820	10 15 4
Bicester	7a. 1r. 14p.	511 6 4	4,140 0 0	621 0 7	4,761 0 7	310	15 7 6
Bishops-Stortford	3 acres	641 15 1	9,137 0 0	1,538 15 2	11,317 10 3	425	26 12 7
Blaby	4 ,,	421 18 5	4,046 0 0	716 12 5½	4,762 12 5¼	235	20 5 4
Blean	208 ft. 8 in. by 208 ft. 8 in.	31 7 11 Cost of Conveyance	5,300 0 0	693 9 9	6,024 17 8	416	14 9 7¾
Brentford	3a. 2r. 34p.	1,094 4 11	6,487 0 0	5,947 16 9	14,028 9 5	560	25 1 0
Bridge	1 0 30	264 1 8	4,376 0 0	1,831 0 0	6,207 0 0	350	17 14 8¼
Chelmsford	7 2 6¾	586 14 0	5,650 0 0	3,724 6 0	9,961 0 0	450	22 2 8
Chipping Norton	7 acres	1,211 2 1	4,993 0 0	1,282 2 8	7,486 4 9	200	37 8 7
Depwade	4 ,,	265 7 8	5,250 0 0	4,201 9 11	9,716 17 7	400	24 5 10
Derby	2a. 2r. 37p.	1,058 18 3	5,635 0 0	1,593 11 7	8,287 9 10	450	18 8 4
Devizes	2 acres	717 0 8	4,816 0 0	927 17 0	0,460 17 8	301	21 6 6¼
Docking	110 yds. by 51 yds., and 2 acres	135 0 0	7,147 0 0	1,246 0 0	8,528 0 0	513	16 12 5¾
Dover	1a. 1r.	120 0 0	7,300 0 0	2,090 0 0	9,510 0 0	400	23 16 6
Eastry	4a. 3r. 33¾p.	1,514 19 0	4,600 0 0	2,639 7 0	8,754 6 0	726	12 1 2
Edmonton	5 acres	1,026 8 0	9,182 10 0	7,290 16 3	17,499 11 3	480	36 0 0
Faversham	4½ ,,	1,026 19 11	6,255 18 2	547 4 1	7,830 2 2	400	19 11 6
Frome	4½ ,,	396 13 0	8,126 16 0	1,454 14 0	9,978 3 0	372	26 16 5¼
Greenwich	5a. 2r. 21p.	1,865 2 6	18,674 0 0	6,087 19 5½	26,627 1 11½	995	16 14 2¼
Halifax	3 3 33	1,429 18 8	8,536 8 0	2,435 4 4	8,656 18 8	420	20 12 2¾
Holbeach	3 acres	349 6 6	3,965 0 0	2,068 14 3	6,033 14 3	271	22 5 3
Holywell	273 ft. by 181 ft.	701 0 0	5,518 11 0	925 12 7¼	7,145 3 7¼	300	23 16 4
Ipswich	3a. 2r.	661 3 2	5,367 0 0	3,433 13 0	9,461 16 2	400	23 13 1
Kidderminster	2 acres	811 19 4	4,480 0 0	1,058 10 11	6,350 10 3	300	21 3 4
Leicester	2a. 27p. 22 yds.	1,641 19 0	8,569 10 9	799 13 2	11,011 2 11	400	27 10 6½
Leighton Buzzard	4 acres	242 0 0	5,600 0 0	1,819 4 9	7,661 4 9	250	30 12 10¾
Lincoln	4a. 34p.	958 2 4	3,745 0 0	2,028 8 9	8,731 11 1	300	29 2 1
Loughborough	2½ acres	575 0 0	5,647 0 0	1,959 0 0	8,181 0 0	370	22 2 2½
Maidstone	4a. 2r. 9p.	534 1 10	8,117 13 0	428 0 0	9,079 14 10	650	13 19 4½
Malling	3 2 28	340 11 7	4,967 13 0	401 1 2	5,709 5 9	150	38 0 0
Milton	0 3 7	187 10 0	3,167 0 0	2,654 4 5	6,008 14 5	325	18 9 9
Newbury	3 1 20	388 4 0	4,960 0 0	2,096 0 8	7,444 4 8	Not fixed	..
Newton Abbot	3½ acres	760 0 9	4,673 0 0	7,660 9 6¾	13,093 10 3½	450	29 1 11
Newtown and Llanidloes	7 ,,	325 13 4	..	676 0 0	11,426 0 0	400	28 11 3½
North Aylesford	2a. 30p.	502 18 4	5,819 0 4	894 8 2	7,216 6 10	292	24 14 3
Nottingham	3 acres	187 0 6 70 years' Lease, at £140 per Annum	..	2,817 12 6	15,861 17 9	1,000	15 17 3
Penzance	6 ,,	1,169 17 2	4,649 0 0	3,698 9 10	9,517 7 0	270	35 5 0
Redruth	280 ft. by 244 ft. 4 in.	Site given	5,750 0 0	2,758 17 8	8,508 17 8	500	17 0 4
Romford	2½ acres	453 15 10	8,709 0 0	1,806 17 7	10,969 13 5	510	21 10 2
Stockport	12,825 square yards	25 11 8 Conveyance 53 8 9 Quit Rent	0,627 2 9½	2,842 9 0	12,495 3 5¼	690	18 2 2
Sudbury	3 acres	1,004 13 6	7,110 0 0	4,483 4 6	12,597 18 0	370	34 0 11½
Swaffham	3a. 2r. 24p.	442 13 4	4,750 0 0	2,654 9 1	7,847 2 5	405	19 7 6
Taunton	3 acres	971 3 6	5,192 13 0	2,313 2 6	8,476 19 0	410	20 13 6
Thame	6a. 3r. 8p.	685 8 6	5,693 0 0	4,097 8 9	10,104 2 3	370	27 6 0
Thanet, Isle of	4 acres	436 10 0	5,523 16 0	1,940 8 8	7,900 14 8	485	16 6 0
Thomas, St.	3 ,,	1,176 7 9	5,475 0 0	4,448 12 3	11,100 0 0	450	24 13 4
Uckfield	5a. 2r. 16p.	146 8 4	7,500 0 0	1,026 18 7	8,663 3 11	418	20 14 6
Walsall	1¼ acres	411 5 0	3,800 0 0	3,283 16 8	7,495 1 8	400	18 14 9
Wandsworth and Clapham	4 ,,	1,600 0 0	8,886 0 0	11,538 0 0	21,424 0 0	550	38 16 0
West Ham	4 ,,	919 12 8	10,484 0 0	3,325 14 2	14,729 6 10	569	25 17 8½
Wisbeach	3 ,,	910 0 0	5,396 0 0	4,694 0 0	11,000 6 0	600	18 6 8
Witney	14 ,,	600 0 0	4,960 0 0	928 17 6	7,418 17 6	450	16 9 8¼
Wolstanton and Burslem	8a. 2p.	1,440 2 0	6,875 0 0	3,522 10 5	11,837 12 5	400	29 11 10¼
Wolverhampton	4a. 3r. 31p.	1,669 10 1	5,610 5 8	2,907 11 2	10,187 6 11	567	17 19 3¼
Wrexham	83 ft. by 90 ft.	550 8 4	5,200 0 0	2,891 0 6	8,641 8 10	420	20 11 5¾
Yarmouth, Great	5 acres	138 17 0	5,720 0 0	2,085 11 0	7,944 8 0	400	19 17 2¾
				Totals .	582,195 14 8¼	25,765	
					Average Cost per Head .		22 11 11¼

No. VII.

COMPARATIVE STATEMENT of Cost of erecting Workhouses, &c. in England and Ireland.

ENGLAND.

Workhouse Accommodation not exceeding 300.

UNIONS.	Dimensions of the Site of the Workhouse.	Amount paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Extra Works.	Gross Amount of the Cost of the Building and Site.	Number of Paupers which the House can accommodate, as fixed by the Poor-Law Commissioners.	Amount per Head of the Gross Cost of the Building and Site.
		£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
Basingstoke	5 acres.	289 12 6	5,700 0 0	1,172 19 4	7,162 11 10	230	32 1 10
Blaby	4 ,,	421 16 5	4,046 0 0	716 12 5½	4,762 12 5½	235	20 5 4
Chipping Norton	7 ,,	1,211 2 1	4,993 0 0	1,282 2 8	7,486 4 9	200	37 8 7
Holbeach	3 ,,	349 6 6	3,965 0 0	2,068 14 3	6,033 14 3	271	22 5 3
Holywell	273 ft. by 181 ft.	701 0 0	5,518 11 0	925 12 7½	7,145 3 7½	300	23 16 4
Kidderminster	2 acres.	811 19 4	4,480 0 0	1,058 10 11	6,350 10 3	800	21 3 4
Leighton Buzzard	4 ,,	242 0 0	5,600 0 0	1,819 4 9	7,661 4 9	250	30 12 10¾
Lincoln	4 a. 0 r. 34 p.	958 2 4	5,745 0 0	2,028 8 9	8,731 11 1	300	29 2 1
Malling	3 2 28	340 11 7	4,967 13 0	401 1 2	5,709 5 9	150	38 0 0
North Aylesford	2 0 30	502 18 4	5,819 0 4	894 8 2	7,216 6 10	292	24 14 3
Penzance	6 0 0	1,169 17 2	4,649 0 0	3,698 9 10	9,517 7 0	270	35 5 0
						Average.	27 15 11½

Above 300, *and not exceeding* 500.

UNIONS.	Dimensions of the Site of the Workhouse.	Amount paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Extra Works.	Gross Amount of the Cost of the Building and Site.	Number of Paupers which the House can accommodate, as fixed by the Poor-Law Commissioners.	Amount per Head of the Gross Cost of the Building and Site.
Abingdon	12 acres.	629 13 2	7,520 0 0	2,854 0 0	11,003 13 2	380	29 0 0
Ampthill	2 a. 0 r. 2 p.	341 18 0	5,925 0 0	1,818 0 8	8,084 18 8	460	17 10 7¾
Ashford, East	181 ft. by 187 ft., and 4 a. 2 r. 19 p.	25 12 0 3 1 7 Quit Rent	4,164 0 0	2,231 14 5	0,421 6 3	350	16 17 11½
Bicester	7 a. 1 r. 14 p.	511 8 4	4,140 0 0	621 0 7	4,761 0 7	310	15 7 6
Bishop's Stortford	3 acres.	641 15 1	9,137 0 0	1,538 15 2	11,817 10 3	425	26 12 7
Blean	208 ft. 8 in. by 208 ft. 8 in.	31 7 11 Cost of Conveyance	5,300 0 0	693 9 9	6,024 17 8	416	14 9 7¾
Bridge	1 a. 0 r. 30 p.	264 1 8	4,376 0 0	1,831 0 0	8,207 0 0	350	17 14 8¼
Chelmsford	7 2 6¾	586 14 0	5,650 0 0	3,724 6 0	9,961 0 0	450	22 2 8
Depwade	4 acres.	265 7 8	5,250 0 0	4,201 9 11	9,716 17 7	400	24 5 10
Derby	2 a. 2 r. 37 p.	1,058 18 3	6,635 0 0	1,593 11 7	8,287 9 10	450	18 8 4
Devizes	2 acres.	717 0 8	4,816 0 0	927 17 0	6,460 17 8	301	21 6 6¼
Dover	1 a. 1 r. 0 p.	120 0 0	7,300 0 0	2,090 0 0	9,510 0 0	400	23 16 6
Edmonton	5 acres.	1,026 5 0	0,182 10 0	7,290 16 3	17,499 11 3	480	36 0 0
Faversham	4½ ,,	1,026 19 11	6,255 18 2	547 4 1	7,830 2 2	400	19 11 6
Frome	4½ ,,	396 13 0	8,126 16 0	1,454 14 0	9,978 3 0	372	26 16 5½
Halifax	3 a. 3 r. 37 p. 0 yds.	1,429 18 8	6,536 8 0	2,435 4 4	8,656 18 8	420	20 12 2¼
Ipswich	3 2 0 0	661 3 2	5,367 0 0	3,433 13 0	9,461 16 2	400	23 13 1
Leicester	2 0 27 22	1,641 10 0	8,569 10 9	799 13 2	11,011 2 11	400	27 10 6½
Loughborough	2½ acres.	575 0 0	5,647 0 0	1,959 0 0	8,181 0 0	370	22 2 2½
Milton	3 r. 7 p.	187 10 0	8,167 0 0	2,654 4 5	6,008 14 5	325	18 9 9
Newton Abbat	3½ acres.	760 0 9	4,673 0 0	7,660 9 6¼	13,093 10 3½	450	29 1 11
Newtown and Llanidloes	7 ,,	325 13 4	..	676 0 0	11,426 0 0	400	28 11 3½
Redruth	280 ft. by 244 ft. 4 in.	Site given	5,750 0 0	2,758 17 8	8,508 17 8	500	17 0 4
Sudbury	3 acres.	1,004 13 6	7,110 0 0	4,483 4 6	12,597 18 0	370	34 0 11½
Swaffham	3 a. 2 r. 24 p.	442 13 4	4,750 0 0	2,654 9 1	7,847 2 5	405	19 7 6
Taunton	3 acres.	971 3 6	5,192 13 0	2,313 2 6	8,476 19 0	410	20 13 6
Thame	6 a. 3 r. 8 p.	685 5 6	5,693 0 0	4,097 0 9	10,104 2 3	370	27 6 0
Thanet, Isle of	4 acres.	436 10 0	5,523 16 0	1,940 8 8	7,900 14 8	485	16 6 0
Thomas, St.	3 ,,	1,176 7 9	5,475 0 0	4,448 12 3	11,100 0 0	450	24 13 4
Uckfield	5 a. 2 r. 16 p.	146 5 4	7,500 0 0	1,026 18 7	8,663 3 11	418	20 14 6
Walsall	1½ acres.	411 5 0	3,800 0 0	3,283 16 8	7,495 1 8	400	18 14 9
Witney	14 ,,	600 0 0	4,960 0 0	928 17 6	7,418 17 6	450	16 0 8¼
Wolstanton and Burslem	8 a. 0 r. 2 p.	1,440 2 0	6,875 0 0	3,522 10 6	11,837 12 5	400	29 11 10½
Wrexham	83 ft. by 90 ft.	550 8 4	5,200 0 0	2,891 0 6	8,641 8 10	420	20 11 5¾
Yarmouth, Great	5 acres.	138 17 0	5,720 0 0	2,085 11 0	7,944 8 0	400	19 17 2¾
						Average.	22 8 8¾

Above 500, *and not exceeding* 900.

UNIONS.	Dimensions of the Site of the Workhouse.	Amount paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Extra Works.	Gross Amount of the Cost of the Building and Site.	Number of Paupers which the House can accommodate, as fixed by the Poor-Law Commissioners.	Amount per Head of the Gross Cost of the Building and Site.
Bath	5 acres.	622 0 0	6,440 0 0	6,788 0 0	13,850 0 0	Assumed 820	16 15 4
Brentford	3a. 2 r. 34p.	1,094 4 11	6,487 0 0	5,947 16 9	14,028 9 5	560	25 1 0
Docking	110 yds. by 51 yds., and 2 acres.	135 0 0	7,147 0 0	1,246 0 0	8,528 0 0	513	16 12 5¾
Eastry	4 a. 3 r. 33¾ p.	1,514 19 0	4,660 0 0	2,639 7 0	8,754 6 0	726	12 1 2
Maidstone	4 2 9	534 1 10	8,117 13 0	428 0 0	9,079 14 10	650	13 19 4½
Romford	2½ acres.	453 15 10	8,709 0 0	1,806 17 7	10,969 13 5	510	21 10 2
Stockport	12,825 square yds.	25 11 8 Conveyance 53 8 9 Quit Rent	9,627 2 9½	2,842 9 0	12,495 3 5½	690	18 2 2

No VII.

COMPARATIVE STATEMENT of Cost of erecting Workhouses, &c. in England and Ireland.

IRELAND.

Workhouse Accommodation not exceeding 300.

UNIONS.	Dimensions of the Workhouse Site.	Amount paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Fixtures and Fittings, and Extra Works not included in Contract.	Amount paid to Clerk of Works, and for Ironmongery and Incidental Expenses.	Gross Amount paid out of Loan for the Cost of the Building and Site.	Number of Paupers which the House is calculated to contain.	Amount per Head of the Gross Cost of the Building and Site.
	A. R. P.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
Ballycastle	5 3 28	647 10 2	3,875 0 0	842 9 4	273 11 4	5,638 10 10	300	18 15 10
Castlederg	3 1 34	35 4 10	2,100 0 0	1,130 6 10	157 11 2	3,423 2 10	200	17 2 3
Clifden	4 3 17	23 7 8 Annual rent . 6 0 0	3,600 0 0	990 14 7	242 5 4	4,856 7 3	300	18 3 8
Dunfanaghy	6 0 0	85 0 0	3,800 0 0	299 2 6	208 14 6	4,392 17 0	300	14 12 9
Gortin	3 0 19	199 15 7	2,689 0 0	626 17 8	154 10 2	3,670 3 5	200	18 7 0
Kilkeel	7 2 23	551 16 3 Annual rent . 1 13 6½	4,050 0 0	1,395 12 4	225 3 10	6,222 12 5	300	20 14 9
							Average.	17 12 6
Above 300, *and not exceeding* 500.								
Abbeyleix	5 3 11	127 15 8 Annual rent . 6 12 8½	5,850 0 0	1,462 13 0	388 14 0	7,829 2 8	500	15 13 1
Ballyshannon	5 0 0	98 13 4 Annual rent . 12 10 0	5,389 0 0	618 6 1	265 18 10	6,372 4 3	500	12 14 10
Balrothery	5 1 7½	70 2 7 Annual rent . 16 13 7	4,945 0 0	1,685 2 2	227 2 9	8,927 7 6	400	17 6 4
Baltinglass	7 2 11	29 8 3 Annual rent . 23 10 3	5,750 0 0	1,788 3 1	214 6 9	7,781 18 1	500	15 11 2
Cahirciveen	8 0 0	3,082 14 0	2,547 10 0	7 3 6	163 8 10	6,529 12 10	400	16 6 5
Carrick-on-Suir	6 3 12	74 19 5 Annual rent . 47 14 0	5,168 0 0	1,584 16 1	316 4 3	7,143 19 9	500	14 5 8
Celbridge	5 0 0	323 0 2	4,600 0 0	1,682 3 6	571 11 11	7,356 15 7	400	18 7 9
Clogheen	6 0 31	53 4 6 Annual rent . 12 1 0	5,230 0 0	1,543 17 11	314 12 3	7,141 14 8	500	14 5 7
Donegal	6 2 10	285 13 7	5,785 0 0	1,249 11 5	260 7 4	7,580 12 4	500	15 3 2
Dunmanway	6 0 0	466 6 7	5,210 0 0	940 14 2	225 14 1	6,842 14 10	400	17 2 1
Dunshaughlin	5 0 0	280 11 3	4,938 0 0	1,342 9 9	234 6 7	6,795 5 7	400	16 19 9
Gorey	7 0 0	19 15 1 Annual rent . 22 12 9	5,675 0 0	1,400 19 4	383 6 2	7,399 0 7	500	14 15 11
Gort	7 1 12	Annual rent . 32 1 4	5,350 0 0	1,108 19 1	332 4 9	8,791 3 10	500	13 11 7
Kenmare	6 0 0	129 14 7	5,315 0 0	788 2 1	329 17 10	6,562 14 6	500	13 2 5
Kinsale	8 0 0	171 12 1 Annual rent . 16 10 10	5,900 0 0	1,710 16 0	348 12 6	8,131 0 7	500	16 5 2
Larne	5 0 37	509 0 7	4,989 0 0	1,940 10 8	267 5 4	7,665 16 7	400	19 0 3
Lismore	4 0 0	45 14 8 Annual rent . 10 0 0	5,600 0 0	1,886 19 7	331 14 0	7,764 8 1	500	15 10 6
Lisnaskea	6 1 36	368 17 11	5,443 0 0	1,687 1 5	336 19 10	7,835 19 2	500	15 13 4
Manor Hamilton	5 1 16	54 17 11 Annual rent . 11 10 11	5,372 0 0	1,069 18 4	344 7 2	6,841 3 5	500	13 13 7
Navan	6 2 22	559 14 11	5,700 0 0	925 11 4	264 2 9	7,449 9 0	500	14 17 11
Shillelagh	6 1 36	21 15 2 Annual rent . 8 0 0	5,300 0 0	1,715 12 1	259 19 2	7,297 6 5	400	18 2 10
Trim	6 1 38	548 1 0	5,750 0 0	2,153 0 4	252 6 2	8,769 7 6	500	17 10 9
							Average.	15 12 1½
Above 500, *and not exceeding* 900.								
Ardee	5 3 24	71 12 7 Annual rent . 18 4 4½	5,175 0 0	1,898 6 10	427 4 0	7,570 3 5	600	12 12 4
Athlone	7 2 24	858 4 3	7,500 0 0	2,289 17 2	253 13 5	10,901 14 10	900	12 2 2
Athy	6 2 4	18 18 6	5,600 0 0	988 15 11	304 6 3	6,910 0 8	600	11 10 4
Bailieborough	6 0 0	224 12 0	6,000 0 0	2,351 1 9	339 13 6	8,915 7 3	600	14 17 2
Ballinrobe	6 1 36	58 18 7	7,000 0 0	1,169 0 2	277 11 0	8,505 9 9	800	10 12 7
Ballymoney	6 0 0	489 3 4	6,785 0 0	978 0 0	326 14 10	8,578 18 2	700	12 5 1
Banbridge	5 1 11	442 11 4	6,300 0 0	2,979 8 1	315 4 7	10,037 4 0	800	12 10 11
Bandon	6 2 20	179 9 2 Annual rent . 14 16 8	6,600 0 0	1,714 3 8	310 10 9	8,804 3 7	900	9 15 7
Bantry	6 0 0	570 0 0	5,990 0 0	627 15 8	314 18 3	7,502 13 11	600	12 10 0
Boyle	6 0 0	126 4 4 Annual rent . 30 0 0	6,885 14 0	2,047 17 2	238 1 2	9,297 16 8	700	13 4 5
Callan	6 1 36	780 1 2	5,000 0 0	1,437 17 6	245 9 2	7,983 7 10	600	13 5 5
Carrick-on-Shannon	6 3 2	16 14 4 Annual rent . 21 2 8	7,050 0 0	2,142 2 3	345 1 9	9,553 18 4	800	11 18 9

Comparative Statement of Cost of erecting Workhouses, &c. in England and Ireland—*continued.*

ENGLAND.

Above 500, *and not exceeding* 900—continued.

UNIONS.	Dimensions of the Site of the Workhouse.	Amount paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Extra Work.	Gross Amount of the Cost of the Building and Site.	Number of Paupers which the House can accommodate, as fixed by the Poor-Law Commissioners.	Amount per Head of the Gross Cost of the Building and Site.
		£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
Wandsworth and Clapham	4 acres.	1,600 0 0	8,886 0 0	12,538 0 0	21,424 0 0	550	38 19 0
West Ham	4 ,,	919 12 8	10,484 0 0	3,325 14 2	14,729 0 10	569	25 17 8¾
Wisbeach	3 ,,	910 0 0	5,396 0 0	4,694 0 0	11,000 0 0	600	18 6 8
Wolverhampton . . .	4a. 3r. 31p.	1,669 10 1	5,610 5 8	2,907 11 2	10,187 0 11	567	17 19 3½
						Average.	19 19 10

Comparative Statement of Cost of erecting Workhouses, &c. in England and Ireland—*continued.*

IRELAND.

Above 500, *and not exceeding* 900—continued.

UNIONS.	Dimensions of the Workhouse Site.	Amount paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Fixtures, Fittings, and Extra Works, not included in Contract.	Amount paid to Clerk of Works, and for Ironmongery, and Incidental Expenses.	Gross Amount paid out of Loan for the Cost of the Building and Site.	Number of Paupers which the House is calculated to contain.	Amount per Head of the Gross Cost of the Building and Site.
	A. R. P.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
Cashel	6 3 8	284 16 7 Annual rent . 34 0 0	5,500 0 0	1,573 18 0	271 16 2	7,830 10 9	700	10 18 0
Castlebar.	7 0 0	45 10 2 Annual rent . 17 0 4	6,300 0 0	1,303 0 8	300 14 3	7,949 5 1	700	11 7 1
Clones	0 0 0	364 0 2	5,750 0 0	1,394 14 11	292 2 4	7,800 17 5	600	13 0 0
Clonmel	..	Annual rent . 23 1 6½	1,505 0 0	1,329 5 7	87 2 7	2,921 8 2	600	4 17 4
Coleraine.	6 3 20	903 10 4	6,870 0 0	1,245 17 7	297 12 1	9,317 0 0	700	13 6 2
Cookstown	8 1 6	18 8 0 Annual rent . 18 1 7½	5,250 0 0	1,341 7 6	328 8 2	6,038 3 8	600	11 11 3
Cootehill	6 0 2	749 2 4	7,360 0 0	3,074 3 5	319 1 11	11,502 7 8	800	14 7 6
Drogheda	7 2 11	84 2 8 Annual rent . 32 14 6	7,100 0 0	2,465 2 7	235 12 4	9,884 17 5	800	12 7 1
Dundalk	8 1 17	393 16 11	5,690 0 0	2,727 19 8	341 10 5	9,153 6 10	800	11 8 9
Dungannon	8 0 0	31 4 2 Nominal ann. rent 24 0 0	6,650 0 0	2,170 17 6	326 12 2	9,178 13 10	800	11 9 5
Dungarvan	4 3 29	246 3 7 Annual rent . 24 13 0	6,480 0 0	2,987 5 10	259 8 6	9,972 17 11	600	16 12 4
Edenderry	6 1 36	340 0 0	5,300 0 0	2,000 15 5	293 2 8	7,933 18 1	600	13 3 7
Ennis.	6 0 0	27 12 1 Annual rent . 26 0 0	8,500 0 0	1,489 3 7	285 11 2	8,282 8 10	800	10 7 0
Enniscorthy	5 0 23	360 0 0	5,600 0 0	1,178 17 5	310 8 3	7,458 5 8	600	12 8 7
Ennistymon	6 0 0	174 11 7 Annual rent . 21 0 0	6,600 0 0	1,119 8 6	317 17 0	8,211 17 1	600	13 13 8
Fermoy	5 2 28	2,815 9 2	3,251 13 0	903 0 8	118 0 8	7,088 3 4	900	7 17 6
Granard	0 1 20	375 0 0	5,925 0 0	889 19 4	391 3 8	7,581 3 0	600	12 12 8
Kanturk	6 0 0	29 7 11 Nominal ann. rent 5 0 0	6,800 0 0	2,123 2 2	278 15 3	9,231 5 4	800	11 10 0
Kells	8 3 9	814 8 6	5,970 0 0	1,420 10 10	283 15 8	8,488 15 0	600	14 2 11
Kilmallock	7 1 29	696 7 10	7,000 0 0	2,837 17 11	222 6 2	10,736 11 11	800	13 8 10
Kilrush	6 0 0	824 8 11	6,600 0 0	1,451 16 6	279 9 3	9,355 14 8	800	11 13 10
Lisburn	6 0 0	725 0 0	6,200 0 0	1,815 6 11	347 6 6	9,087 15 5	800	11 7 2
Listowel	6 0 0	537 15 3	5,980 0 0	1,859 18 10	436 13 10	8,814 5 11	700	12 11 9
Londonderry	6 0 8	827 3 11	6,780 0 0	1,920 15 7	224 19 10	9,752 19 4	800	12 3 9
Loughrea	6 2 2	36 14 6 Annual rent . 12 13 7	6,960 0 0	1,510 1 10	282 1 3	8,788 17 7	800	10 19 8
Lurgan	6 0 0	513 2 6	6,130 0 0	1,685 13 11	253 2 4	8,581 18 9	800	10 14 6
Macroom	6 0 0	705 1 6	5,890 0 0	1,499 1 10	265 10 7	8,359 13 11	600	13 14 7
Magherafelt	6 0 0	25 0 0 Nominal ann. rent 5 0 0	6,600 0 0	2,289 14 3	303 0 3	9,217 14 6	900	10 4 9
Mallow	6 0 0	74 19 3 Annual rent . 3 0 0	6,090 0 0	2,841 8 2	416 15 5	9,423 2 10	700	13 9 2
Midleton	7 0 0	. . .	6,853 0 0	2,086 4 8	325 18 6	9,265 3 2	800	11 11 7
Mohill	6 1 3	54 6 9 Annual rent . 15 10 1	6,700 0 0	1,824 18 5	288 7 6	8,665 10 8	700	12 7 6
Monaghan	7 2 5	956 17 1	6,350 0 0	2,490 16 3	276 4 9	10,073 18 1	900	11 3 10
Mountmellick	6 0 0	50 8 0 Annual rent . 37 1 3	6,915 0 0	686 18 6	428 7 3	8,080 13 9	800	10 2 0
Mullingar	10 2 11	810 0 11	7,250 0 0	1,268 10 10	309 15 9	9,838 7 6	800	12 0 11
Naas	5 1 14	53 0 6 Annual rent . 26 12 7½	5,550 0 0	3,028 8 9	325 5 7	8,956 12 10	550	16 5 8
Newcastle	5 0 0	271 17 5	6,680 0 0	2,436 9 4	354 8 2	9,742 14 11	550	17 14 3
New Ross	10 0 3	198 12 0 Annual rent . 43 6 3	7,600 0 0	1,463 15 1	273 9 5	9,535 16 6	900	10 11 10
Newtownards	8 1 8	846 3 2	4,835 0 0	1,774 11 10	280 17 5	7,736 12 5	600	12 17 10
Newtown Limavady. . . .	7 0 14	872 5 0	5,982 0 0	914 9 2	268 0 3	8,036 14 5	600	13 7 10
Oldcastle	7 1 6	632 15 1	5,975 0 0	1,245 17 11	333 18 0	8,167 11 0	600	13 12 10
Omagh	6 0 0	24 13 5 Annual rent . 30 0 0	6,557 0 0	2,174 8 11	234 0 9	8,990 3 1	800	11 4 9
Parsonstown	6 3 5	545 12 2 Annual rent . 8 4 6	6,900 0 0	1,683 16 0	316 11 4	9,445 19 6	800	11 16 1
Rathdown	8 0 0	17 2 2 Annual rent . 49 12 0	6,500 0 0	2,745 8 1	240 5 6	9,502 13 9	600	15 16 6
Rathdrum . . . , . .	5 1 34	18 4 4 Annual rent . 10 18 6	8,600 0 0	1,378 2 10	292 17 1	8,289 4 3	600	13 16 3
Rathkeale	6 0 0	640 2 10	6,686 0 0	1,024 12 10	210 18 10	9,461 14 8	660	14 6 8
Roscommon	7 1 6	34 5 8 Annual rent . 48 12 7	7,500 0 0	1,311 7 7	385 2 1	9,230 15 4	900	10 5 1
Roscrea	6 0 0	641 4 5	6,700 0 0	1,495 15 0	277 13 4	9,114 12 9	700	13 0 4
Scariff	6 0 0	408 4 8	6,400 0 0	1,617 15 8	248 12 4	6,674 12 8	600	14 8 1
Skibbereen	6 0 0	312 10 5	7,000 0 0	1,563 6 4	370 19 11	9,246 16 8	800	11 11 1
Strabane	9 1 11½	161 1 11	6,885 0 0	2,449 9 2	274 14 2	9,770 5 3	800	12 4 3
Thurles	6 2 0	1,065 14 6	5,840 0 0	1,139 14 7	373 3 5	8,418 12 6	700	12 0 6
Tipperary	6 0 0	169 7 5 Annual rent . 25 4 0	6,240 0 0	1,635 9 10	246 7 7	8,261 4 10	700	11 16 10
Tuam	7 1 3	380 9 1 Annual rent . 10 1 11½	6,700 0 0	1,065 18 7	515 18 10	8,682 6 6	800	10 17 0
Tullamore	6 1 7	709 9 1	5,930 0 0	1,469 13 11	299 15 5	8,428 18 5	700	12 0 0
Waterford	6 0 25¼	1,266 17 9	7,600 0 0	2,211 16 10	264 0 2	11,343 3 9	900	12 12 0
Wexford	7 0 0	13 13 1 Annual rent . 58 18 0	5,780 0 0	724 18 3	248 10 3	6,767 1 7	600	11 5 6
							Average.	12 2 11½

Comparative Statement of Cost of erecting Workhouses, &c. in England and Ireland—*continued.*

ENGLAND.

Accommodation for 1000.

UNIONS	Dimensions of the Site of the Workhouse.	Amount paid for the Site, including the Cost of the Conveyence.	Amount of the Original Contract for Building the Workhouse.	Amount of Extra Works.	Gross Amount of the Cost of the Building and Site.	Number of Paupers which the House can accommodate, as fixed by the Poor Law Commissioners.	Amount per Head of the Gross Cost of the Building and Site.
	A. R. P.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
Greenwich	5 2 21	1,865 2 6	18,874 0 0	6,087 19 5½	26,627 1 11½	995	16 14 2½
Nottingham	3 0 0 70 years' lease at	187 0 6 140*l.* per annum.	..	2,817 12 6	15,861 17 9	1,000	15 17 3
						Average.	21 5 11¾

Comparative Statement of Cost of erecting Workhouses, &c. in England and Ireland—*continued.*

IRELAND.

Accommodation for 1000.

UNIONS.	Dimensions of the Workhouse Site.	Amount paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Fixtures, Fittings, and Extra Works, not included in Contract.	Amount paid to Clerk of Works, and for Ironmongery, and Incidental Expenses.	Gross Amount paid out of Loan for the Cost of the Building and Site.	Number of Paupers which the House is calculated to contain.	Amount per Head of the Gross Cost of the Building and Site.
	A. R. P.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.
Armagh	7 0 27	1,366 13 9	7,200 0 0	3,422 1 4	367 5 7	12,356 0 8	1,000	12 7 1
Ballinasloe	5 3 3	136 7 11 Annual rent . 10 13 9	7,600 0 0	2,562 19 1	326 14 7	10,628 1 7	1,000	10 12 8
Belfast	12 0 0	2,228 16 0 Annual rent . 28 12 2	7,000 0 0	3,957 10 2	299 8 5	13,485 12 7	1,000	13 9 8
Castlerea.	6 0 0	798 13 8	8,485 0 0	1,069 15 11	329 18 6	10,683 8 1	1,000	10 13 7
Downpatrick.	11 1 36	1,393 9 4	7,500 0 0	3,118 6 6	322 3 9	12,333 19 7	1,000	12 6 7
Galway	7 8 38	1,261 18 4	8,162 0 0	2,133 7 3	314 15 11	11,872 1 6	1,000	11 17 5
Longford.	6 3 22	44 4 9 Annual rent . 35 6 6	7,000 0 0	2,583 18 0	296 17 5	9,925 0 2	1,000	9 18 6
Nenagh	7 0 0	32 19 2 Annual rent . 50 0 0	8,320 0 0	1,645 8 7	366 2 2	10,364 9 11	1,000	10 7 3
Newry	7 2 7	1,200 8 6	7,100 0 0	3,267 7 10	299 1 9	11,866 16 1	1,000	11 17 3
Tralee	10 0 0	30 1 10 Annual rent . 62 0 0	8,557 0 0	1,201 19 0	331 3 9	10,210 4 7	1,000	10 4 2
Westport.	7 1 30	35 18 9 Annual rent . 14 9 9	7,800 0 0	1,454 13 1	351 4 9	9,641 16 7	1,000	9 12 9
							Average.	11 4 3¾

Accommodation above 1000.

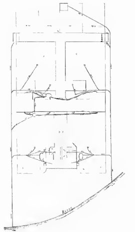
UNIONS.	Dimensions of the Workhouse Site.	Amount paid for the Site, including the Cost of the Conveyance.	Amount of the Original Contract for Building the Workhouse.	Amount of Fixtures, Fittings, and Extra Works, not included in Contract.	Amount paid to Clerk of Works, and for Ironmongery, and Incidental Expenses.	Gross Amount paid out of Loan for the Cost of the Building and Site.	Number of Paupers which the House is calculated to contain.	Amount per Head of the Gross Cost of the Building and Site.
Ballina	8 0 15	755 10 1	9,400 0 0	1,529 8 3	345 4 1	12,030 2 5	1,200	10 0 6
Cavan	9 0 0	981 4 7	10,500 0 0	1,600 17 0	312 14 1	13,394 15 8	1,200	11 3 2
Cork	12 0 0	1,456 6 8 Annual rent . 53 13 10	12,800 0 0	4,595 3 0	331 12 9	19,183 2 3	2,000	9 11 9
Dublin, North	..	8 15 0 Annual rent . 19 7 9	4,819 6 8	2,628 5 6	188 18 2	7,645 5 4	2,000	3 16 5
Dublin, South	..	8 15 0	5,608 18 9½	4,327 13 9½	74 0 9	10,019 8 4	2,000	5 0 2
Kilkenny	9 3 21	1,678 1 11	9,700 0 0	1,788 16 8	329 19 7	13,496 18 2	1,300	10 7 7
Limerick.	11 1 14	109 11 9 Annual rent . 70 0 0	10,000 0 0	5,026 17 1	278 12 11	15,415 1 9	1,600	9 12 8
Sligo.	9 0 0	25 17 3 Annual rent . 50 0 0	9,100 0 0	3,748 9 10	337 10 10	13,211 17 11	1,200	11 0 2
							Average.	8 7 0½

Note.—In the Appendix to Mr. Wilkinson's Report, "M" Table, showing the comparative Cost of the Workhouses erected in England and Ireland respectively, the Columns "Cost per head for the Number accommodated" do not quite agree with the above Tables, which have been prepared from Returns recently obtained, and may therefore be considered as correct.

NAAS UNION WORKHOUSE,

PLAN OF THE DRAINS.

As given in the Return to the Honᵇˡᵉ the House of Commons, in May 1843



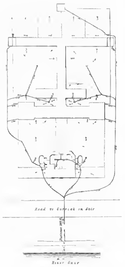
REFERENCE

Overflow and Waste Drains			───
Rainwater Drains and Tanks	„	*Blue*	⬭
Cesspools	„	*Green*	⬭

CARRICK ON SUIR UNION WORKHOUSE,

PLAN OF THE DRAINS.

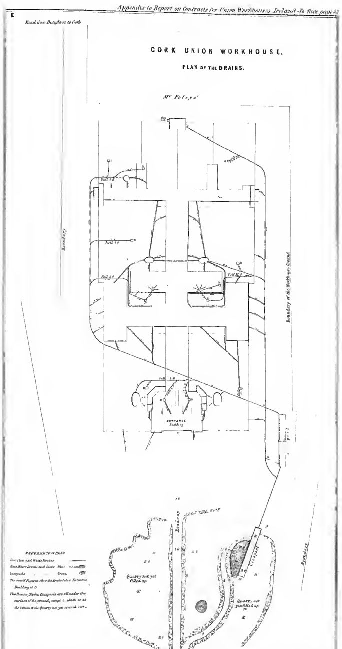
As executed by the Contractor for the Poor House.



Standidge & Cº Litho London.

CORK UNION WORKHOUSE.

PLAN OF THE DRAINS.


E
Road from Douglass to Cork
Mr Foley's
Boundary
Boundary of the Workhouse Ground
Fall 1.6
Fall 1.0
Fall 2.0
Fall 11.0
Fall 1.0
ENTRANCE Building
0
Roadway
Quarry not yet filled up
Quarry not yet filled up
Cesspool
Boundary
REFERENCE to PLAN
Overflow and Waste Drains
Rain Water Drains and Tanks Blue
Cesspools Green
The small Figures shew the levels below Entrance Building at 0
The Drains, Tanks, Cesspools are all under the surface of the ground, except C which is at the bottom of the Quarry not yet covered over.
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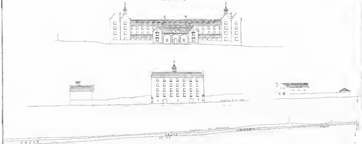
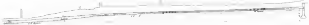
F

CORK UNION WORKHOUSE

SECTIONS &c. SHEWING THE SURFACE OF THE GROUND
FALL & DRAINS &c.



Section on line A.B



Section on line C.D

Horizontal Scale 40 Feet to One Inch.
Vertical Scale 20 Feet to One Inch.

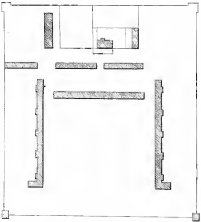
GEO. WILKINSON ARCHITECT

Appendix to Report on Contracts for Union Workhouses, Ireland. To Face page 39.

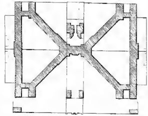
K

PLANS SHEWING THE ARRANGEMENT OF THREE DIFFERENT PUBLIC BUILDINGS IN IRELAND.

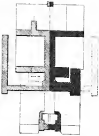
DRAWN TO THE SAME SCALE.



FERMOY NEW BARRACKS
FOR 1600 MEN



LIMERICK LUNATIC ASYLUM
FOR 150 INMATES



LIMERICK UNION WORKHOUSE
FOR 1600 PAUPERS.

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